The Practical Course delivered by Dr. John Gregory at Edinburgh 1768/9

Vol. 1.

The Nature of Disease

[illegible] of all the [illegible] the human [illegible] and the proper method of curing them. [illegible] the Pathology nor Therapeutics [illegible] any province. These 2 Branches belong to the Physician and I must suppose them already known. It is necessary before I enter on my particular subject, to explain some ~~external~~ general Causes of Diseases and the General Principles proceed upon in the Cure of them.

Every Animal has a certain external and internal structure of Parts and certain Functions Natural to its species: when this structure is in its Natural Condition and the Functions are performed with Regularity and Ease that Animal is said to be in health; any Deviation from this Condition is Disease. A Disease therefore is shortly any Deviation of the human Constitution from this Condition or its Natural State. This Definition of a Disease includes in it what ever is belonging to a Physician to Cure. My reason for making the Definition so general is that I may include in it Intermittents and Fevers, many of which

cannot be excluded as Dr. Boerhaave's definition.
The taking in the proximate cause in the definition of a Disease stands to be improper as Dr. Hoffman has done it. When a Disease does not consist of any single morbid appearance but of many conjoin'd, the concourse of these form the Disease, and each of them is called a Symptom. The Definition of a Disease should be taken from these, & from such only as most generally accompany the Disease. The Proximate Cause ought not to be taken in as this creates disputes about the Definition owing to every Physician almost having a different Notion of the Proximate Cause which nothing is more trifling.

There are some particular Cases however, in which I think it necessary even in a definition to include the Cause, but these are where the Cause is so perfectly evident as to create no Difficulty or Disputes. As Sauvage follows this method & is more full than most other Authors, I shall generally follow his Definitions.

Diseases are distinguished from their

Oregon, which [illegible] many Branches &c.

I. Into these diseases we may [illegible] are transmitted from Parents to their Children as Pth. Pulmon. Apoplexia, Madness, Gout, Scrophula; certain Cutaneous Diseases [illegible] very great Sensibility of the Nervous System, a Disposition to the Confluent kind of Small Pox; but tho' this last is frequently the Case there are Numerous Exceptions to it.

These breakout at different Periods of Life, some in childhood as the Scrophula particularly which seldom appears after the Age of Puberty and often disappears at that Period; the same of this kind does not seize all the Children of the same Parent promiscuously, some escape it altogether & it often passes a Generation & appears in the Grand Children.

The Causes of these are very generally unknown and no more to be accounted for than the similitude of features and Disposition of Children to their Parents; some of them indeed depend on the particular Conformation of the Parts as in the Apoplexy, Pth. Pulmonalis &c.

It has been said that these diseases which are

appear at certain periods of life are communicated to the Children at the time they are begotten, and think there is little foundation for this.

Hereditary Diseases are generally very difficult or impossible to cure; what we should endeavour to do is to moderate the Symptoms and to prevent the Hereditary disposition being communicated to the patients Children, but even of this I know no Instances in Medicine.

There is a Difference betwixt hereditary Diseases and Congenite or contracted in the womb without being at all communicated from the Part. Diseases distinguished from their Origin are also subdivided into,

II. Primary and Secondary; A Secondary Disease is that which depends on another Disease as the Primary. Thus in a Dropsy depending on a Schirrus Liver, the latter is the Primary Disease & the former the Secondary. Secondary Diseases in reality differ from the Symptoms but the Distinction is not easily made.

III.d They are divided into Diseases seizing great Numbers at once from a common Cause.

Cause [illegible] diseases, which are [illegible] divided into [illegible]

Endemics are such Diseases peculiar to the people of any Country arising from certain Circumstances of Climate and Situation, the Intermittent fevers are endemic to all low marshy Countrys, & the Phis. Pulmon. may be so to Great Britain, owing principally to the great vicissitudes of Weather, which exposes the inhabitants to frequent Colds. On the Continent 'tis called Phlis. Anglica.

Epidemics seize a great Number of people at once, from some General Cause, the Nature of which is often unknown, they are generally believed to depend on some Quality of the Air, tho' it's not sensible; but the air may rather be allowed the Medium that transmitts the Contagion. But sensible Qualities in the Air have great effect upon these Epidemics, in rendering them milder or more violent. Thus most putrid Epidemics are carried off by Winter, and the Vernal ones checked by the approach of Spring. There is a very important Distinction betwixt Vernall & Autumnal

Epidemics [illegible] are either with an inflammatory Diathesis of the Blood & the other with a putrid. Epidemic Diseases have a great influence on the type of Sporadick Diseases prevailing at the same time viz. Dr. Sydenham. Epidemics may act either in consequence of a Contagion in the Air or an Infection propagated from one person to another, tho' this is not always easy to be known. In the second way there is great reason to think that the plague is communicated. Epidemics mostly belong to the Class of Acute Diseases as fevers, there are scarcely any Instances of Chronic Diseases being Epidemic. There are certain Circumstances in the Course of Epidemic Acute Diseases that deserve a particular Treatment, which you'll see well illustrated in Dr. Sydenhams Practice. Dr. Freind makes very light of this, but entirely from Theory. Most of the Epidemic Putrid Diseases appear to act in Consequence of an Assimilating Ferment, but more of this hereafter.

IV. They are divided into Diseases peculiar to particular Temperaments and Constitutions

Constitution [illegible] Phlegmatic Bilious, [illegible] that have [illegible] of the Nervous System.

V. Diseases peculiar to certain Trades & ways of Life are an important Distinction see Ashis Ramazini de morbis Artificum These attack not only Artificers, but in all other different ways of Life have their peculiar Diseases; as Studious people & Miners accordg to the different Metalls they work. Luxurious people who have been used to eat & drink high tho' of a delicate make, require a very different management from those who have been accustomed to live low & on plain food & ~~accustomed~~ to much fatigue and labour. Habit should in a particular manner be attended to, in acute Diseases; for a person used to drink largely of wine, falling into one of these cannot be supported with water gruel to such wine should be allowed in a certain Quantity. We know people by habit eat a great deal of travail'd in Northern Climates, without any the smallest Injury, now should any one

one who has been [illegible] to swallow his food, and to be afraid to throw him into a fever, so that great allowance ought to be made to habit.

VI. Diseases peculiar to certain periods of life, which Distinction is of Considerable importance in practice. Children are peculiarly subject to Diseases of the head, as to Epilepsy, slumering behind the Ears & eruptions on the head. In Youth these morbid Congestions happen in the Breast and produce Hæmop. Phthis. Pulmonal. Asthmatic Disorders &c. In the Decline of Life morbid Congestions in the Alimentary Canal are more frequent and in the Abdominal Viscera, whence Hæmorhagies from the hæmorhoidal Veins & Obstructions in the Abdominal Viscera. A Diarrhoea is natural to Infancy, those who want it have a very tickelish Constitution & during the teething Children have also a great Sensibility of the Nervous System, more than at any other time perhaps.

VII. Diseases peculiar to the Sexes, from

from whence arises a considerable variation in the method of treatment. Thus most females either proceed from an obstruction of the menses or from their too great quantity, or the fluor Albus which is a disease very common especially among women of Fashion. Differences also arise from the State of Virginity, Pregnancy, Lying in, Suckling and the coming on of the Menses and their going off.

VIII. The last subdivision is into the Contagious Diseases; such as the Plague, Eruptive Fevers and Dysentery which appear in general to be only communicated from those that are infected to those that are well; some are only propagated by immediate Contact as the Itch, L.V. It is observed that almost no Diseases are contagious but Acute ones except those only that are propagated by Contact. It is also observed in general, that the less of the Inflammatory Diathesis they have the more Contagious & vice versa, And the more putrid they are the more Contagious but this is no certain Rule. The Contagious Diseases of one Species of Animals are gene

generally not contagious to different species of Animals but cannot be observed that a similar Contagion has spread among the other species of Animals at the same time.

Putrid Diseases acquire their greatest Virulence by crowding many sick people together where there does not a free circulation of Air, as in Goals, Hospital & Ships & Hospitals, and I am persuaded it would tend to save the lives of Numbers were there no hospitals or Hospital Ships in the Army & Navy. It is difficult to say whether all Contagious Diseases can be reduced to certain Classes they have all been comprehended under Exanthematous, Catarrhal & Dysenteric. But I have known Instances of Inflam.ⁿ Diseases evidently contagious as of the Eyes ~~but~~ and there are several Nervous Infectious Diseases that in my Opinion cannot be reduced under these Depiscens or Classes.

The 2.ᵈ Division of Diseases is from

is from [illegible] head. [illegible]

I.st into [illegible] this [illegible] is very vague and of little consequence in practice except in some few particular cases.

II.d into fixed or wandering as in certain species of the rheumatism and gout.

III. into idiopathic & sympathic. The first is when the cause of the Disease subsists in the Place affected and Sympathic or Symptomatic when it is not fixed in the place affected. thus a headach and Vertigo from the cause being in the stomach is Symptomatic, but this Distinction is difficult to establish; a Disease merely Symptomatick should go along with the Primary; but if Symptoms remain after it is then called a Secondary Disease; as when an Ascites remains after a Schirrus liver has been cured which was the primary Disease. Symptomatick Appearances are either critical or not. thus Diarrhoeas in Fevers are often critical for instance; and this is a Distinction that deserves particular Attention and notice.

Lect. It has been very usually imagined that the Sy-
2. mpathic Sympathy [illegible] by the Connection [illegible] such a Connection
Sect. that one of them being affected or injured disease
7 & 8 another part of the Body at a distance becomes
likewise affected. This has been supposed from
the Communication of nerves with one another
but this very evidently cannot be always the Case
this has been called Sympathy of nerves; which
Term if used to explain a fact not the Cause of
that fact may be as proper as any other.

II. into Universal or such as affect the whole System
and Topical or such as affect particular places.
Thus Fever is an universal Disease properly
so called but a Pleurisy is improperly so called
because it's attended with local Inflammation.

The 3d. General Division of Diseases
is according to their Cause; subdivided
I.st into those of short and long Continuance
or chronical; if those of short Continuance are
severe and dangerous they are called Acute.
II.d into Continued or intermittent, and another
kind called Remittent. all which may very
easily be illustrated from Fevers as is well

well known, the fever which the fever cage
most is called [illegible] Intermit-
tents the fever Paroxysm.

Intermittents and Remittents are also
Regular or Anomolous; When they return at
certain regular periods they are called Peri-
odicall. The Periodicall Diseases are mostly
fevers Evacuations and Nervous Disorders
Examples of these are Hemorrhages, Intermitts
and Epilepsy and Madness.

The Different Parts of a Disease are the
Invasion, or first attack, the Augment, the State
or acme and the Decline: in Periodicall fevers
these are sometimes to the whole Course some
times to particular paroxysms.

The 6th General Division of Diseases is that
is taken from their Nature and Genius.

1st. Subdivision into mild and severe.
Instances of the Mild we have in some Sligh
Endemic Catarrhal fevers which keep the
patient but for a few Days and seldome
quite the absence of a Physician.
Severity is to be judged of from the whole
Concourse of the Symptoms.

II. into Sporadical Diseases which were has been exceedingly abuse & have been most generally used in the three following senses.
1 Diseases beginning with very mild symptoms and suddenly without any sensible Cause & turning violent.
2. Diseases attended with unusual severity for that Disease.
3. Diseases proving very obstinate & refractory to all remedies.

The Cases it is most commonly applied to now are very dangerous fevers of the Putrid kind, as the Goal & Hospital Fever. Gangrenous sore throat.

III. into Regular Diseases sometimes called Idiopathic, i.e. when the symptoms are regular & the Periods natural. There are some Diseases where the symptoms are unusual to such a one which are called Anomalous, and are very often occasioned by two different Diseases meeting in the same person, as in persons subject to nervous Complaints seized with a fever worms too are often the Cause of these Anomalous symptoms.

IV Another subdivision is into Diseases

Diseases that are active and Inflammatory this is of great Consequence to us.
Active Diseases are such as there is a sensible Effort made by Nature for the Relief of the Patient. Passive when Nature makes no Effort for his relief.
In common Inflammatory Fevers Nature generally makes an Effort by some Evacuation as Diarrhea, Bleeding of Nose sweat &c.
And in Eruptive Fevers this particularly remarkable. Of the Passive kind are the Scrophula, Lues, Cancer &c.

There is a 5th General Division of Diseases into Curable & incurable which is Vain & ill Consequence.
We ought to call no Disease incurable, we ought rather to say, that it is a Disease we do not know how to cure. Indeed there are some Diseases which we cannot have any hopes of curing, as Gangrenes in the Scrota with great loss of Substance; but there have been several Instances of Gangrenes being cured & there has been considerable loss of Substance, and after a Gangrene goes a certain

certain Length [illegible]

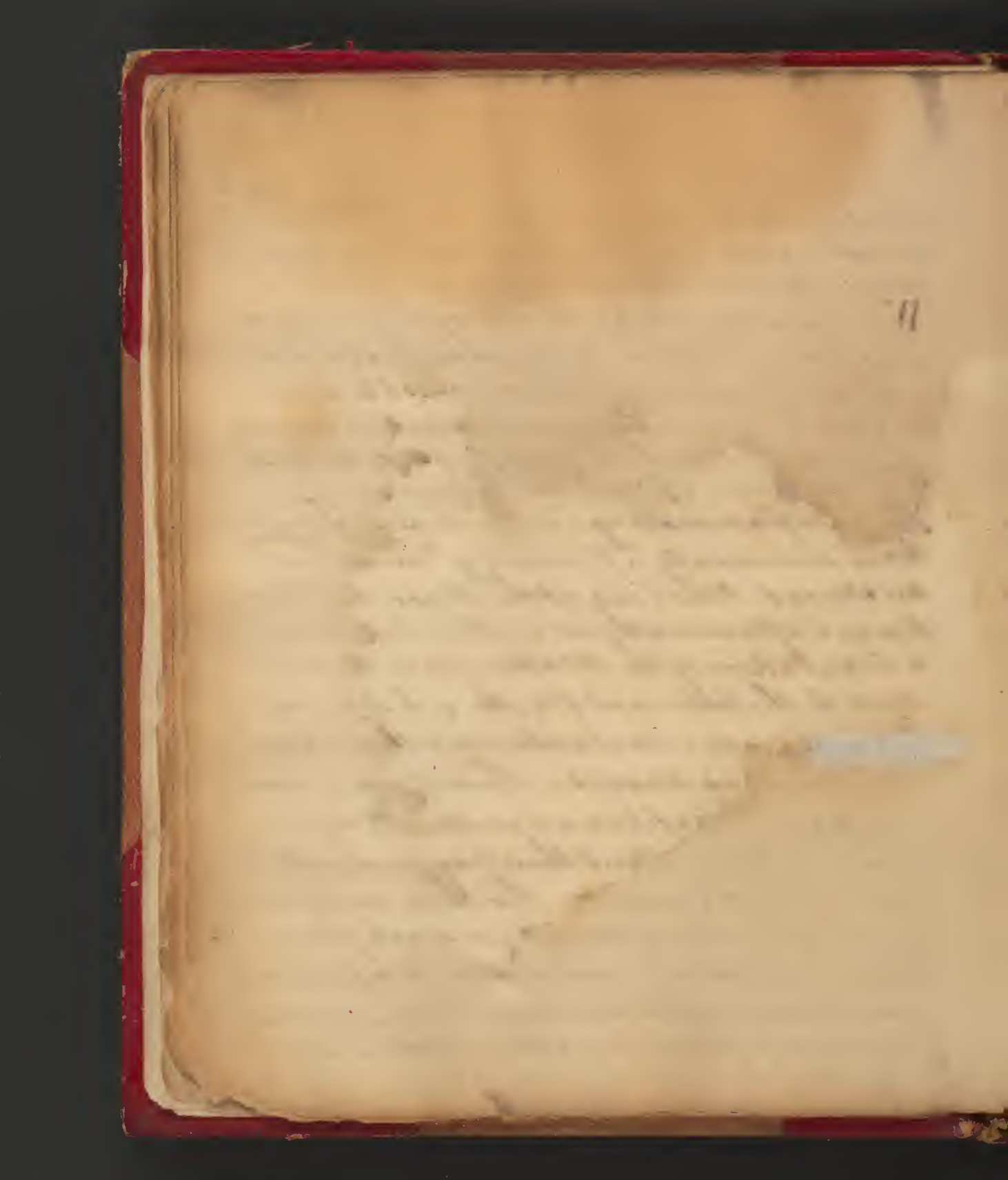
II^d Subdivision is into those Diseases that return but once in a Man's Life. Instances of this we have in the Measles, Small Pox, Chincough and 'tis vain that those who have once had the Plague will never be infected with it again.

It has been observed that the Small Pox have returned again, or that a person has had them twice, but its very rare; & I am not certain if there be any Instances of it well vouched.

I. Into Salutary Diseases, or Diseases which have a proper Crisis. Instances of this we have in the Gout, which may rather be reckoned the Paroxysm of a Disease, than a Disease itself. And A Tertian Ague may be reckoned a Salutary Disease or rather a Salutary Crisis of [illegible] Disease, for we often find Obstructed Viscera cured by it. There are some Evacuations as Diarrhoea in Children, and Common Inflammatory Fevers that are certainly very Salutary. And we find it very dangerous to stop accustomed Evacuations as Cough in old Phlegmatic People by which they daily Expectorate great Quantitys of tough

although needed [illegible] Bleeding at the Nose at certain times is very salutary, ought not to be meddled with.

IV. Subdivision into critical Diseases and those that have no particular Crisis. Critical Diseases are those which have a particular Termination or Crisis whether favourable or not, tho' most commonly those which have a favourable Crisis. Thus Inflammatory and Continued Fevers have commonly a Crisis by Evacuations as sweat, Bleeding at the Nose, and sometimes Inflammations are terminated by a translation of the Matter from the Internall to the External Parts which translation is called Metastasis & this Matter then forming Abscess. These Crisis have been said to happen on certain Days hence called Critical, but this has been of late looked on as Chimera, tho' there really is in Nature a foundation for such periods as we might almost conclude a priori. For we the most Substances have particular & determined Periods of time, for their Action



alterations are wrought in the Vegetation and fruit by fermentation of liquors, however many Circumstances may vary the setting and there may be a reason assigned for the variation of critical Days here, because of the alteration of Climate, they are not so regular here as in more Southern Climates since the reason why these Days Hippocrates called Critical are not observed here.

There is another Division of Diseases according to their Occasional or Proximate cause There is no doubt but the last of this would be the best, but then we are for the most part Ignorant of this Proximate Cause. The order that is most natural is from the external symptoms, which was never done upon any regular Plan till the time of Sauvage, for which he has great Merit But with his Method must labour under many Defects since I imagine it impossible by it to have a complete Arrangement. Sauvage gives an Artificial Arrangement of Diseases in Botany Plants are ordered. But the New Plan is different from this and is as following

The Classification to follow with regard to diseases is to throw them together that bear a close affinity most in their nature & causes. In which method I shall be the most careful one disease being understood will throw light on another that resembles it in most respects. I always dislike a plan as different from mine & has advantages which mine has not but then mine has several advantages over his. & as I dont want to make nothing Fixt I will follow my own method No System but has its peculiar Advantages & inconveniences & I dont pretend this as a perfect one

Classification of Diseases

Class 1.ma Febrile Diseases

Ordo 1.m Intermittent Fevers &c

Fevers which alternately cease & return at certain regular periods.

Ordo 2. Continued Fevers &c

Fevers which from their first invasion to their End always continue with nearly the same degree of violence

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Class. 1ma Ordo 3. Remittent Fevers or fevers which at certain times are much less violent but not quite gone, & the fever grows to the same violence as at first when the period angues.

Ordo 4. Exanthematous or Eruptive Fevers are such Fevers as are attended with Eruptions of the Skin as Scarlet & Petechial Fevers &c.

Ordo 5 Phlegmasiæ or Fevers attended with Topical Inflammation, under this shall put the Phthisis pulmonalis, the Rheumatism Gout & Tetanus Convulsiva.

Class. II. Preternatural Evacuations of whatever kind.

Ordo. 1. Hæmorhagies or Discharges of Blood from any place as the Nose, Gums, Hæmorhoids &c.

Ordo 2. Evacuations by Vomit or Stool.

Class. II Ordo 1. Nervous Excretions

Class. III Paralytick Disorders &c, the Apoplexies

Ordo. 1. Defficiencies in the Excretions as being &c.

Ordo. 2. Debility in certain Organs as loss of motion in any place as Incontinal Impotency.

Ordo 3. Loss of Motion

Ordo 4. Particular Debility of the Vital Powers as Syncope &c

Ordo 5 Soporose Diseases as Lethargy, Apoplexy &c

Class. IV Spasmodick Disorders

Ordo. 1. Rigidity as Tetanus

2. Illness accompanied with Agitation, or wandering as Epilepsy, Hysteric Fits & Strangulation the Asthma Colic & Head Ach by which I guess 2 Classes of Causes the Dolores &c,

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Class V. Mental Disorders

Ordo. 1. Deceptions of the External organs and table vision

2. Depraved Appetites.

3. Delirium

4. Anomalous Disorders of the senses as loss of Memory.

Class. VI. Cachexies

Ordo. 1. Atrophy i. universal wasting.

2. General Swellings as Anasarca, Emphysema and Immoderate fat ness:

3. Particular Dropsies as the Ascites, Hydrocephalus, and under this comprehend the Tympany

4. Swellings of the Solid parts as the Rickets

5. Cutaneous Diseases as Impetigo, Itch, Scurvy, Lues Venerea

6. Anomalous Cachexies as Gangrene, Chronical Ulcers

diseases which cannot reduce to any of these classes & which shall treat of together because they resemble of so much in their proximate causes. Worms must be treat of in themselves because they are not so much a disease as the proximate cause of one. Under the head of Poisons I shall take in the Hydrophobia & next I shall treat of the Diseases of Infants & then such as are peculiar to Women such as those caused by the Menses, Pregnancy &c.

This in general is the plan I propose to pursue, & in the end I hope to have as much time left as will allow me to go thro the General Principles of Surgery & the Deformities; but you must take notice that I don't mean to detail the Manner of Operations, for this is quite out of my Province.

As this then is my general Plan I shall proceed to lay down before you in exactly as I can the General Method I intend to treat of particular Diseases and

1. I shall give a very exact Definition of the Disease; by which I only mean an accurate & distinct Enumeration of all the Symptoms that essentially constitute this Disease & clearly & exclusively

it from every other Disease. I shall begin with
Defore the Class & Order to which it belongs to which the Species
& Genus.

I shall give an accurate & particular a Theo-
ry of its Symptoms from the beginning to the
end of it as I am able. And particularly point
out the Pathognomick & Diagnostick Symp-
the Diagnostick Symptoms or those which dis-
tinguish this particular Disease from every other
require a very particular Attention & if not
attended to sufficiently may lead frequently to
very Mistakes in Practice. Nothing is more
common in the Country than to see Colics
& Inflammations of the Guts prescribed for
as if they were Flatulent Complaints, they make
them swallow down large Quantities of Spir-
-ituous Liquors & Spiceries, which were there
no inflammation, perhaps might raise
one, but in flatulent Cases, these are not at all
bad remedies. Here too I shall speak of the ex-
-amination of the Disease as to its Effects on the
Constitution, which sometimes are very

× There must be an Error here, for Gaubius says § 59 — "Occasio est quæ quid prodest fomenti super "accidens hanc excitat: ut una morbum pariant. "Contra occ., sola producendo morbo sufficit, sin "sanum concursus requiritur. Prodesi partes re "quisit, occasio non noct: & necessem se prodesi. "Occasio ab occasion Causes, causes a Morbo." the Doctor will say then — which of themselves cannot kill, I mean without the concurrence of Predisposition and Causes.

got the Better of, at other times [illegible] Necessary. We must [illegible] to prevent the Bad effects of the Disease and likewise a Relapse, for some Diseases tho' quite disappeared, are very apt to return again.

3. I shall handle the Predisponent Cause of the Disease, the Causes PROPENSUM are some particular Circumstances of persons like which dispose him to be susceptible of a one particular Disorder. So Young Sanguine persons are more subject to Inflammatory Fevers than any other kind. The form of some peoples Body, as narrow chest subjects them to particular Disorders, as Phisis Pulmon.

+ 4. Occasional Causes are certain Circumstances existing without the Body, such of themselves ~~may~~ immediately bring on a Disease and that without the Concurrence of Predisponent Causes.

5. Prognostick or a foreknowledge of what will happen, that is we can fortell in what way the Disease will terminate as in life Death.

Death &c. This knowledge is of great importance to a Physician, suppose some critical evacuation is about to happen now if the Physician do not forsee this he probably may give medicines that will prevent & disturb Nature, & this may be of the very worst consequence but if he forsee this he will let Nature alone & if she is difficulted or embarrassed assist her; likewise if he forsee any violent Symptoms that threaten Death, he may in all probability be able to prevent them or, at least to mitigate them. However a Physician ought to be very cautious in fortelling any events especially to the Patients freends because this art is not at all brought to perfection, and Diseases sometimes take so unexpected Turns that we can not always fortell their Events.

6th. I shall endeavour to explain as far as I can, the Proximate Causes of Diseases, which is a certain internal substance existing in the body, and immediately causing the Disease

and when removed the Fever ceases.
It is to be obtain'd from the antecedent causes and an accurate Examination of the Symptoms Morbid Dissections greatly assist in discovering it, but in these we are very apt to be deceived, for upon examining the Body of a patient who has dies of a fever we will probably find extravasations & Inflammations & probably Gangrenes, but these are not the proximate Causes of Fevers, they rather are Effects of them The Proximate Cause of Diseases is sought for in the fluids of our Body, as in Plethora or fullness, in Impletiness, in Viscidity, & when they are dissolved, in Acrimonys, Sour Juices & these are of Different kinds, as Alkaline Acid & Muriatic Acrimonys; in Polypus Concretions, of our Blood & Fluids.
It is sought for too in our Solids, as in Tension, & Relaxation of them Inflammation Gangrene, & in Calculus Concretions; it is sought for in the Primæ Viæ as Stomach Intestines &c But a disorder may be felt in the Stomach & removed by a Vomit altho there be nothing in the Stomach either Acrid or

or that could hurt it, this owing to the connection it has with the whole nervous System. This Proximate Cause is sought for in Dropsies & other Extravasations, of Serous Humors in whatever place of the Body, and in Worms, or Disorders of the Secretions, in the Circulation which when irregular is the Cause of morbid Congestions is to be sought for in the Nervous System & Sentient Fine. Tho' this be an Enquiry of the greatest difficulty yet it's of the greatest importance & use in practice & ought to be searched into with constant & uninterrupted Diligence & Application as it is of all others what will throw greatest light on the Cure of Diseases.

A Physician in searching into the proximate Cause of a Disease should always do it with a view of being able to cure & remove it, a speculative Enquiry will have little influence on Practice. Most Systematic writers do with the greatest facility point out the proximate Cause of Diseases, but then they are not at all to be looked on as really true but merely Chimerical & the offspring of their fancy

Indeed the proximate cause of a Disease
because every particular symptom may have
a proximate cause & it may be difficult & some
times impossible to be found out by us.
Thus in the Jaundice, the proximate cause of the
yellow Colour of the Skin is an obstruction
of the Bile. But then what is the Cause of this
obstruction? whether is it Calculus, Spasm or
Calescence of the sides of the Ducts in conse
quence of Inflammation? Allow we can
reasonably conclude that it's a Calculus in
the Ducts. next Question what is the Proximate
Cause of this Calculus, whether owing to a
Cretiona Diathesis in the Blood, or to the con
formation of these Ducts. At other times tho'
we may have reason to believe we have found
the Proximate Cause yet we shall not be able to
trace it directly from the Symptoms.
We will be greatly assisted in our Inquiries as
it, to examine the Antecedent & Concomitant Causes
& to attend to morbid Secretions which if accurately
& carefully attended to may be of the greatest Service.
But allowing a Physician cannot discover
the proximate Cause of a Disease yet if he be
carefully observed it's successfull treatment

before, & often seen it treated successfully with the same remedies, it will not be reckond empericall practice in him to exhibit those remedies he has so often observed prove efficacious in curing it. Thus in an intermittent fever, no one knows the proximate cause of it, & every body knows that the Bark will cure it. At other times tho' we may know the proximate cause of a disease yet its often out of our power to remove it:

7th I shall take Notice of the Indications Cure. The first is to remove if possible the Particular Disease under Consideration. If that cannot be done to alleviate or palliate the most violent symptoms. And next to prevent the effects of disease, which sometimes, are very bad & lay foundation for chronicall Disorders or such Disorders as the Patient never gets the better of. And in desperate Cases when there is no reason to expect a favourable turn we must make Death as easy as possible. The Indications are to be taken from the Antecedent, Occasional & Proximate causes. And from some particular Circumstances in the Patients Case, as unusual Cravings.

Some Cases occur, where no Indication can be had or depended on, then if the Disease is not violent we may use the Lenientia & quantitate Nature make some Effort that will afford an Indication. As the Proximate Cause is the source whence the indication's are taken when it is not attainable we must reason from Analogy or the resemblance we find betwixt it & some known Disease. It has been said that a Rational Physician never practises without a thorough knowledge of the Proximate Cause of a Disease but as this is not always possible I think he will be the Rational Physician who gives the Best Reason for his Practice Francis Sylvius supposed an Acid in the Blood to be the proximate Cause of all Diseases & accordingly prescribed Alkaline Volatile Salts & Sudorificous Powders, this was certainly a bad practice & yet he was acknowledged to be a Rational Physician.

After going thro' the Indications of Cure in particular Diseases I shall according to the Order of Indications mention particular Remedies adapted to those Indications and after all give

give some Account of the Authors who have wrote best on the Practice of Physic.

Before I enter on the treating particular Diseases, some General Principles are necessary to be premised with Relation to their Management, & ought to be carefully attended to.

I. We ought attentively to Observe the Vigorous Efforts of Nature in every Disease.

The Word Nature is variously used & explain'd; the most general Sense in which it is applied is that of the System or Body of Laws by which the Deity governs the World. The Sense we take it in is that System of Laws by which Providence governs the Animal Machine. This Machine tho' disordered, does not cease to move, like any factitious one, but Nature or the System of Laws by which it moves, makes some Effort to rectify & regulate its Movements. These Efforts however are sometimes very irregular & not at all Uniform & sometimes so very violent as entirely to Destroy the Machine at other times insufficient to do any Service from their weakness. Hence Art must be called in to regulate, to restrain & assist Na-

Nature, according as she shall stand in need of either. When Nature makes no Efforts towards her own Relief Physicians must be guided by Experience & Practice.

Physicians differ in leaving Diseases to the Conduct of Nature, & in some slight Colds she may & is often left the Management. Thus leave Eruptive Fevers as Small Pox to Nature & she is an Admirable Manager of them. Other Diseases need particular Art, because Nature seems to make no Efforts for them as L. V. Dropsy & Inflammatory Disorders.

II.d We must never mistake the Effort of Nature for a Disease itself.

For in some kinds of Fever there often comes on a Diarrhoea which if let alone and not stopt by Medicines ends the Disease & is a real Effort of Nature to stop the Fever & cure it.

But in some Febrile Disorders there are Evacuations which aggravate & increase the Disease as Diarrhoea long continued & proceeding from some internall Cause as Ulcer in the Lungs &c.

Children who have been subject to Convulsions

Convulsions are generally freed from them by an Oozing behind their Ears, & scabbed head. These Evacuations ought by no means to be stopped, by astringent Applications or any thing that has a tendency to repell these humors. Sordid Ulcers appearing commonly terminate & cure several Diseases, & must not be dried up too soon

III^d. We should generally in the beginning of Acute Diseases cleanse the Primæ Viæ. Bleeding has been commonly ackowled the first necessary Step in curing Acute Disorders of every Kind, but in Nervous Fevers at least in some Stages of them a little Quan.^y of Blood taken away sinks the Patients Strength surprisingly. Indeed in Inflammatory Disorders more or less Blood may generally be taken away, & by it we will be able to judge of the State of the Blood

There are certain Symptoms that indicate the cleansing of the P. V. by Vomit or Laxative as Loathing of Food, Ill Taste in the Mouth Lastiness preceeding. &c. here a Vomit ought be given & if it do not procure a lax stool

some gentle Cathartick should succeed it, by which means any putrid stuff in Stomach or Guts will be evacuated & any fomes of the Disease removed as shall be spoke of afterwards. It was formerly a Rule among Physicians never to bleed Vomite or purge, unless at the very attack of the Disease, so that if a fever had lasted 3 or 4 Days before they were called what ever appearances there might be of foul Stomach &c. they never ventured to exhibit Vomits or Purge, lest they should disturb the Coction of the Morbid Matter, but sure this is a wrong practice & Bleeding Vomits or Cathartick may be given at any time if indicated without Danger.

It was another Maxim with them, to give Physic after every febrile disorder which was certainly very absurd. For if a Patient recovering from a Fever should complain of no disorder of his Stomach, but should have a good Appetite, & feel no remains of his former Disease what good Purpose could the weakening him with a Cathartick serve.

In Putrid Disorders there are apparent Marks

marks of the primæ viæ being overloaded and disordered, here indeed a gentle Cathartick should be exhibited.

And after the Small Pox it is very proper to administrate a Cathartic, because of the Gutts being full of them & if the patient is Costive the hard feces may produce unfatal Consequences, therefore it will be necessary to give one, both to prevent this & carry off the putrid Scabs & matter that may be lodged in the Course of the Alimentary Canals

It has often been observed that Emetics given in the beginning of Acute Diseases have prevented their farther progress, and Antimonial Emetics given in small Doses have generally an Effect by Vomit & Stool & may sometimes remove the fomes of the Disease, if repeated often & in small Doses

IV. To palliate or mitigate the most urgent Symptoms. But sometimes we are prodigiously nonplussed when there is a Danger in palliating these Symptoms and at some time a Danger in not doing, and certainly

certainly of two Evils the least is to be chosen. Thus in the Pleurisy when the Cough is very violent encreasing the fever & other Symptoms, if I administrate an Opiate I am perhaps in danger of checking the Expectoration, but then the Opiate quiets the Cough, & allays the Pain but if it hinder Expectoration the matter will be accumulated & suffocation the Consequence so that here I am at a loss how to proceed, & think there is more danger from the Cough which by encreasing the Pain & of Consequence the Inflammation may bring on a Gangrene, than from the Administration of the Opiate.

V. We ought to attend to the Age, Sex, Climate, manner of life and particular Constitution or as it's called Idiosyncrasy of our Pat. For it is certain that Children do not bear bleeding so well as Adults; but when they bear Serous Evacuations much better, for a Child will continue in a Serous Diarrhoea for a Year together without losing any of its Strength, which Diarrhoa would in

in less than half the time [illegible] Adult.
And in warm Climates they wear bleeding
much better than in Colder.
We should likewise consider the manner of
Life of our patients, for the same Medicine
has generally a much greater Effect on the
people of high Rank who have lived delicately
than on the lower sort of people who have
lived on Coarse Victuals and taken much
Exercise. Habits long indulged deserve par-
ticular consideration, for persons who have
been accustomed to drink freely of wine or
Spirits falling into a fever ought not entirely
to be prohibited their Use, but allowed
either in moderation.
And even in Chronick Diseases a Sudden
Change of Diet will have very often bad
Consequences & is very dangerous.
Some People after recovering from fevers
like to eat those things they were formerly
fond of, as Butter and bread, toasted, which
may be given without any hurt, tho' to a

to a person in health who had not been accustomed to it, it would probably be too
VII heavy. + Sometimes Patients have strange Cravings and if they are not for things evidently hurtful they may be indulged in them, and indeed I never saw any bad Effects follow.

In Fevers they are constantly crying for Cool Air and Drink, which was denied them till Sydenham introduced the Cool Regimen for which we are greatly indebted to him. Nothing is more absurd tho' tis very common, than to load a Person with Cloths who is already too warm and then give him heating Boluses &c.

VIII. When there is no clear Indication by which we may be directed & the Case is not very Urgent we should wait till we see what Nature points. But sometimes if we prescribe nothing the Patient loses that Confidence he ought to have in us & thinks himself entirely neglected, and something must be prescribed to prevent this, but it

it should be something, that can do no harm if it do no good.

IX. We should hold it a maxim not to give strong remedies in the Paroxysm of a fever tho' in some cases it is the only time they ought to be given.

X. 'Tis a bad practice to give many remedies and change them often, for we can neither know their Effect or forever which of them produced it. Compound medicines are another Cause of our ignorance of the Vertues or Effects of Drugs. If possible we should prescribe one simple medicine only & make no additions without good reasons; rather change it till we are ascertaind of its Effects. If a medicine is nauseous I may add something to take this away but it should be such a thing as will not change the Effects of the Remedie.

Sect. 3 Aph. 14 & 17 & 18 We ought in an opical manner to prescribe simple medicines to children.

But there are two Causes that hinder simplicity of prescription.

1 There are some Countrys where Physicians are not paid for their attendance, only for their Drugs, which lays them under a Necessity

of multiplying their prescriptions and giving compound medicines, for to get any tolerable subsistance

2. Some people are so fond of medicines that they think themselves entirely neglected unless they get something every 2 or 3 hours.

In these Cases one would need to be acquainted throughly with a number of forms of prescription to order things agreeable and at the same time that will do no hurt.

XI. In Chronical Disorders when the whole systems disordered Medicines that operate slowly & produce their Effects gradually should be prescribed in considerable Doses.

And in these it is of the greatest Consequence to observe a particular Diet, moderate Degree of Exercise, & to drink considerable Quantity of Mineral waters and to keep an easie mind.

XII. We should endeavour to divert as much as possible the force of the Disease from the internal to the externall Parts

parts; but we are not always able to effect this, tho sometimes it's of the very greatest consequence, as in the Gout in the Stomach which soon proves fatal, if not removed; in Erysipelatous Cases, and in the Small Pox ~~and likewise in the Gout~~ we may generally do it.

XIII. The State of the Mind should be always attended carefully to, and kept as easie as possible. The Tis Pla should likewise be supported. We observe the Mind & Spirits very low in all nervous Complaints and in Disorders of the Stomach, & a particular attention to the State of the Mind may remove these; for Hypochondriacal people when alone & thinking of their Complaints will sometimes labour under most of the febrile Symptoms, as heat, quick pulse, weariedness & lassitude & upon any of their Acquaintances whom they liked or thought agreeable going & drinking with them perhaps a Bottle of Claret they will

will forgett all their Complaints and have none of the foregoing symptoms left. In fevers we should always support the Spirits, & never let our patient be too dispirited but give him wine in small Quantitys now & then.

It may be observed that the keeping the mind easy promotes all the secretions even as well as riding on horseback or any other bodily exercise whatever.

XIV. In all desperate Cases or such Cases as we can have no hope of the Patients recovery, & we know nothing that can be of any service, if we have known any Empirical remedie or heard of any, we may exhibit it, but I cannot lay this down as a general Principle, because the Physician ventures his Reputation & runs a very great risk to lose it, if he do not succeed. But Empirical Remedies ought to be examined very carefully & have fair Tryals because thige are some of them that have di

been found very useful and efficacious when ordered with prudence and Caution.

And here I can not but observe that Excess of prudence in regular Physicians has been more fatal than excess of Rashness in the Empirical Tribe.

Having premised these generall Rules relating to Diseases in generall I shall now proceed in order of the plan I have laid down, to consider the particular Classes there specified with the particular Orders of these Classes.

The first Class of Diseases I propose to treat of is Febrile Disorders. And according to my plan must give a definition of Fever.

Class 1st

Febrile Disorders.

If any person has a quick pulse, increased heat of his Body, with a Debility of his limbs and has had a preceding fever Rigor such a person is said to have a fever.

This last Symptom is not universally pre

present in all fevers, in others it is so slight as to pass unobserved by the Patient and in children we cannot be certain of its Existence therefore I think it should not be taken in as a part of the definition, which should always be taken from the Symptoms that most generally attend a Disease.

Thirst are none of these always present tho' the most general Symptoms of the Disorder, except Quick ness of the Pulse, and even this in some stages of nervous Disorders is scarce perceptibly quicker than in health. Heat is very generally present in all fevers, and debility of the limbs is universally so except in one stage, viz. Delirium; where instead of being weakened or debilitated they acquire more strength & vigor while it lasts.

The first order of Fevers I propose to treat of is Intermittents my reason for this is because in the Paroxysm it exhibits all the Phenomena of Fevers in general in the most decided manner.

Class. 5.t Order 1.st

Intermittent Fevers.

Intermittent fevers are such as continue a certain time, then leave the patient well & return again.

They are variously divided and first into 1 Regular when the fever returns at regular Periods, and Irregular when it keeps no certain time.

I shall treat of Regular Intermittents together, then because their general symptoms are similar and the general method of cure is the same, however there are some special such as fevers, which shall be taken Notice of as we proceed. The Proximate Cause appears to be nearly the same in all of them as far as we can observe.

In Regular Intermittents, the Paroxysm almost always begins with a Coldness wch is succeeded with heat, & that by a Sweat called ἀποκρίσις.

The most common kinds of Regular Intermittents are Quotidians, Tertians, & Quartans

A Quotidian Ague is when the Paroxysm returns every day at a certain time.
A Tertian when it returns every other day, that is one fits one Day & happens on the next at a certain time.
A Quartan returns every fourth Day i.e. includes two Days, or the Patient has two well Days intervening twixt the 2 Days that the fitt happens on.
Besides these which are the most common there are Quintans &c.
Intermittents are an instance from Pliny often Annexed to Ague but these are allway [illegible] & some of them may be mistaken or ill vouched.
There are other differences to be observed in these as when the fitts returns one day easier & the next severe it is called double Tertian which is not otherwise distinguished from a Quot. but by the fitts being alternately easier & severe.
A Double Quartan, when there is a fitt for two Days running, and next or third Day none at all. There is another Distinction of these fevers from

state of the Blood whither it inclines most to Inflammation or Putrefaction, called the Inflammatory and Putrid Fevers of the Blood.
And this is a distinction of very great Consequence & importance in the method of Cure.
Besides these Fevers there are under this head other Diseases comprehended or elapsed, because they have been observed to have periodicall Returns as Sciatica and Headach by Sauvage another reason is that they yield to the same method of Cure and to the same Medicines.
We shall now consider the generall method of Cure of Progress of the Fevers.
Sometimes they are regular from the Beginning i.e. the paroxysm returns at regular periods at other times they begin irregular & turn regular very often a Vomit will have this Effect of making the Fitt return at the proper Period. They often are not to be distinguish'd from a Continued fever at the beginning but then assume their own Type which is generally a very favourable issue & leads no danger: but when they change into a continued Fever they are commonly very dangerous

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and often in this Case they keep their Type or their Periods may be observed very regularly.
These Intermittents often change into one another as a Quotidian into a Tertian &c.
It is rare but during the Intervalls the Patient is well & no marks of the Disease to be found but, they for the most part have a yellow Complexion their Urine Lids fall a Laterinous Sediment, both Active & Degestive faculties seem considerably impaired
In Vernall Agues the third fit is severe, the 4th the worst & the 7th mild and for the most part carries off the Disease, this is observed in generall.
These Fevers sometimes in spite of Medicines and bad treatment will keep their Type surprisingly obstinate.
Cleghorn mentions some that would not yield to the best treatment but still kept their Type as likewise did those who were exposed to the damps and Night Air.
When the Ague goes off entirely there is always left an uneasy kind of Sensation, about the

the time the Paroxysm should have return'd even tho' the Ague be entirely removed by proper remedies. The Circumstances of Regimen Climate, Infancy Putrid Diathesis &c. vary the appearance of the Paroxysm and all the Symptoms very much.

We have now seen the General Progress of Intermittents at their Beginnings & on their general Course we next examine their appearance in the Paroxysm.

At their Incursion there is a Coldness which is more severe than what precedes the Cont.d Fever, attended with stretching Yawning Lassitude oppression, Anxiety. Paleness of the Lips & Nails depressed Pulse, And sometimes Cough, Hæmoptoe, Convulsions have proceeded even a Tetanus, Strangury & Sleepiness have been observed. Qu. Dr. Hoe the Cold generally begins in the feet, & proceeds gradually upwards, sometimes 'tis only partial and is felt in the Shoulders & Back as if Cold water was pouring upon them.

The Cold fitt has been often observed to produce such violent tremblings as to break the Death and the patient rendered so feble as not to be able to stand. The lower Extremities are cold whilst the upper are hott. but in generall the Extremities are Coldest.

The Duration of it is various in some it will continue half an hour in others longer or shorter & it has been known to continue 12 hours wch is the greatest space of time I ever heard of. It is laid down as a generall Rule that we may determine the length & Violence of the hott fitt from the Cold but this is not always true because we have heard Instances where there has been no Cold fitt at all & where the ~~Cold~~ fitt has been proportionably less violent as the Cold was more so. which is the direct opposite to this Rule, yet generally speaking it may be allowed.

There are Instances of Intermittents preceded by Violent Paine in different places of the Body and sometimes by Coma, Apoplexy, and one instance, by a fitt of Loquacity, instead of the

the Cold fit, which was wanting altogether.
Old People in Agues have a trembling small Pulse
Palpitation of heart attended sometimes w. Syncope
Anxiety, Apoplexy. In the Cold Fit there is com-
monly a Dryness & parchedness of the Throat, and
very often a vomiting of Bilious Ropy Stuff.
During this fit pains are often felt over the Body
resembling Rheumatism. They often complain
of Pain in the head, attended with Delirium, and
all the Secretions are imperfect, & the Urine often
very little & perfectly limpid. There is often a
remarkable Insensibility of the Nervous System
attendent on this fitt. Patients have been cauts
nay burnt with hot Iron without so much as
feeling it & this Insensibility is not confined
to the externall parts alone for the operation
of Cathartics has been suspended during
the Cold fitt which proves that the Guts have
been incapable of Irritation. At other times
the Patient has had a Diarrhoa during it.
It has been said that during the Cold fitt the Patient
was really warm, by the Thermometer, but
this is not true always for I have seen him

evidently colder and at other times considerably colder than in a Natural State.
Many Authors say that in generall Intermittants observe earlier time of day according as their Paroxysms are more frequent or at less Distance thus the Paroxysm of a Quotidian happens in the Morning, of a Tertian in the forenoon of a Quartan in the afternoon and so on.

Lect. 6 Nov. 15 '08 } We have examined some of the Appearances in the Cold fitt, which immediately succeeded by the hott. This comes on gradually, after the cold are of which many symptoms still remain as the dryness of Tongue and throat, debility of limbs and anxiety. The Face is much flushed and all the Skin red, the Urine high Coloured, the heat greater than in a continued fever, the breathing which in the cold fitt was oppressed, now becomes free, the pulse is full and strong.
It is generally said that Tertians and all agues kill in the Cold fitt but in hott Climates they are fatal in the hott fitt. But old People labouring under Quartans, are most commonly carried off in the Cold fitt. The duration of this fitt is very

very various and uncertain, tho' it is generally said to be in proportion to the preceding Cold fitt. If the patient is bledd we will scarce discover any obvious difference in it's appearance, sometimes indeed we find it so much dissolved as not to separate into Crassamentum and serum.

The last stage of the Paroxysm is the Sweat, and in proportion as this spreads over the Body the hott fitt wears off. Its Duration is likewise exceeding various for sometimes it begins with the hott fitt & in Lucartans the Skin is often found to be dry without any sweat succeeding the hott fitt which is no good Symptom.

The Urine is found frothy and as soap was dissolved in it, but as the sweat advances the Febrile Symptoms wear gradually off and the Urine begins to let fall a Lateritious sediment which has been considered as a Pathognomick Symptom, however this cannot be justly said because we find the same appearance in the Urine of Scorbutick Patients and in some Inflammatory Fevers especially in Pleurisies. We often find a Calcarious sediment instead of this Lateritious one especially in Vernall Agues.

The Duration of Intermittent Fevers is very

various & uncertain. Vernall Tertians ordinarily terminated from 5 to 9 Revolution, seldom so soon as five or more than Nine.
Autumnal Quartans especially in old people generally last till the turn of the Season or Spring & when weak perhaps a whole Year, but in young they commonly go off about the winter Solstice. Children on accounts of their weak lax habit continue long in these Fevers.
It is generally said that Quartans last longest or have the most numerous Revolutions, some have been said to continue 22 Years, tho' I'm apt to believe there have been Obstructions in the Abdominal Viscera, which afforded a constant Cause to the Disease.
'Tis a General Observation that Intermittents last in proportion to their Intervals, or that if their intervals be short their Duration will be short. That therefore Vernal Agues as Tertians soon go off even of themselves with the warm weather, whereas Quartans continue much longer commonly half a Year & sometimes more, but then it never returns, and a man that has once had a Quartan will never have a

another in his life. But this cannot be depend-
ed on as a General Rule.

These Intermittents have often very Salutary
Effects on the Constitution and have been said
to contribute very much to Longevity, and that
People who have had a Quartan, & got well over
it, live very long.

They have been often observed to carry offen-
sively many Period.l Nervous disorders, as
Headaches, Pains &c. & that they had this Effect was
plainly proved by Stopping them with the
Bark, and immediately their disorders
returned.

Tertians have been reckoned the most Sa-
lutary in their Effects on the Constitution & seld
om prove fatal unless in very warm Climates
Nay it is said that during the Plague those
who laboured under Tertians were not infected
with the Contagion.

Tertians are said to cure Stomachic Disorders
Obstructed Viscera, especially in Liver & Spleen
Rheumatick Complaints, Epilepsy, Palsy, Asth-
ma, and the Gaut and Stone have been observed
to be alternate with it in their Revolutions
or Periods which as it hints some sort of Com-

Connection twixt these Diseases should be particularly attended to,

Intermittent Fevers have sometimes bad Effects on the Constitution and are the Cause of many obstinate Diseases. In Children they frequently occasion the Rickets by rendering them so weak and lax, & they often leave an opinness of the Skin and a Disposition to sweat which weakens the Patient exceedingly. They likewise have been said to dissolve the Blood & hence cause Dropsies, Leucophlegmatia, &c. Obstructed and enlarged Viscera, as very frequent Consequences of these Agues, but as by some said to proceed from the Exhibition of the Bark which is not at all the Cause of these Obstructions & Enlargements of the abd. Viscera.

When Patients have suffered considerable Evacuations before these Fevers they often labour under a Diabetes after them and sometimes a particular sort of Madness or Deotism wch however as they recruit, wears off.

We shall now proceed to the Prognosis

If Autumnal Agues begin soon in the Season as in the Month of June they will be very Epidemic and in generall the sooner in the Season they begin

begin the most Epidemical they are observed to be and the most fatal, for Quartans, that begin early carry off vast numbers, of old people.
There is a swelling of the Belly, not a Dropsical one, that is very salutary and critical, for as this advances the febrile Symptoms grow less violent and the Ague goes entirely off.
There is likewise reason to think that this swelling is rather owing to Flatulencies in the Colon than obstruction of the Viscera.
We often find a particular swelling of the legs proves a very Salutary Symptom.
The most fatal Symptom about the end of Agues is a sort of Angina wch begins with an Inflammation of the Tonsils, a Difficult Deglutition succeeded by Facies Hippocratica. This commonly appears about 2 or 3 Days before the Patient's Death & is a certain sign of his approaching Fate. A natural Salivation has been known to carry off these diseases.
The Small Pox appearing during the Course of an Ague very often proves a Cure for it, and some sorts of Itch have the same Effect. By Itch I mean any Eruption with Itching and oozing of water

Pustular Eruptions about the mouth and Nose at the End of Intermittents, and Abscesses in any part of the Body are generally Esteemed very favour: able Symptoms, but about the beginning they presage no good.

The most Dangerous Paroxysm in Intermittents is that which is not preceded by a Cold Fitt.

Bleeding at Nose is reckoned a very good Symp. in the hott Fitt.

If the Summer has been wett we may generall expect to find the Intermittents very obstinate and apt to return upon the slightest occasion After Agues we often find swellings of the Belly and Legs, which are not very Dangerous in generall; but they are more so in Quartans than Tertians.

In Agues we often find the Pulse small and depress'd which if attended wth Pains in the Praecordia and anxietys is very dangerous, but if these do not accompany it, there's little hazard as it's merely nervous - At other times we find the Pulse exceeding slow and full which when the Animall or Vitall Functions are disordered as in Soporose Cases may be generally reckon'd a fatall Symptom.

Intermittent Fevers are highly dangerous in warm Climates, when connected with a putrid Diathesis of the Blood, which often happens if they are not timeously stopt. It is impossible to know certainly from the first attack of an Intermittent what particular Genus it will be of, Galens maxims are at all found to hold in practice.

Antecedent Causes and Predisponent come next in order.

And it is observed that young people in general are most subject to agues more so than Infants, or old People. It has been said tho it is not certain, that Quotidians happen most frequently to Women and Phlegmatick habits Tertians to the Young and active and those that have great sensibility of the Mind. Quartans to those advanced in Age, the Melancholy Speculative and Studious. But I could never from my own Experience have laid down such observations. Debility of the System & extreme Sensibility of Nervous Power are certain predisponent causes of Agues, and a more general one than either is a patients one having had an Ague be

before, particularly a Quotidian or Tertian

We next come to the Occasional Exciting Causes, which I shall reduce to several heads First Errors in Diet and Regimen, as food of very hard Digestion, every thing that hurts the Digestive faculties, as hard drinking At same time are going into a Country where they are very Endemic as Holland, living a little more fully & drinking a Glass more than usual, tho' not to excess I know from Experience to be very useful & the best preservative. Among the Occasional Causes the Most Powerful is the catching of Cold when the Body is heated & particularly when the Cold is attended wth dampness as the Night Air, sleeping in a Damp place; but simple cold Air without these Circumstances will scarcely produce an Ague. Excess of Fatigue, or watching frequently bring it on, Excess of drinking & watching always tend to debilitate the Constitution; and also Dispose to catching Cold the one an Antecedent the oth an Occasional Cause of this Disorder. I dont say that these Occasional Causes are of themselves any

sufficient to produce an Ague but only where there is a predisposition or Epidemic Tendency to it in the Air.

α. Violent affections of the Mind, all the depressing passions, as Fear, Grief, by depressing the Vis Vitæ, occasion this Disease

β. Suppressions of usual Evacuations, and very violent Evacuations, are often occasionall Causes. Sometimes the Violent Action of a Cathartick, and repelling spontaneous Eruptions when the Skin produced.

γ. The next occasional Cause is a particular state of the Air especially a Damp State and along with that, Putrid Exhalations. Easterly winds are apt to induce the Ague, especially in those who have had it before, and they have in generall a remarkable Effect on such. It is commonly thought that the Easterly wind occasions this by being more damp but that this is not always the Case appears by the Hygroscope, it having these Effects when it is exceedingly dry. Some say that dry seasons induce Agues, and this may be the Case as the Air may be very Moist without Rain and rainy weather is not always the Moistest. For Air seems to be a Menstruum in which the Water is

is suspended, and therefore like other Menstrua will take up more when warm. But rain stops exhalation. Hence there will be most Dampness in the Air in the warmest weather, and hence too much Moisture falls in the Night in very warm weather.

8. Agues are Endemic in many Countries, particularly in fenny swampy Countrys in Scotland called Carses. This arises from the great exhalations of water. In some parts of England a Quartan Ague is the most obstinate, and the most frequent, but in Scotland they are very rarely met with. Many Countrys have no Agues as particularly a Sandy, hilly, gravellish Soil. Intermittents & Remittents are Universal Diseases in all the warm Climates, and generally speaking in the Autumn. It is observed they prevail more in the East Coast than in the west of Great Britain, What is remarkable in some Countries where they were formerly unknown they are now become Endemic and the Contrary. This can often be accounted for from the Change in the face of the Country, as by clearing away the woods, but it happens also independent of this.

2. Another occasionall Cause is a certain Disposition of the air in Consequence of which the Disease becomes Epidemic. This has often been referred to an alteration in the Sensible Qualities of the Air, but this is often not the Case

They become Epidemic chiefly in Autumn & Spring, but in Countries subject to Inundations they rage with greatest Violence just when the water is near drained off and the Exhalations are then exceedingly putrid from the Rotten Vegetable & Animal Substances especially in warm weather

3. Independent of any particular Constitution of the Air, it would appear that in some Cases the Disease is contagious & infectious which is very positively asserted by many Medicall Authors but I never saw it happen In generall however they are not to be considered among the Infectious Diseases.

We next come to Morbid Dissections, which in generall throw no light at all upon the Proximate Cause of the Disease They only shew those alterations that have taken place in Consequence of the Violence of the Symptoms

Symptoms. They shew a great accumulation of grumous Blood in the heart, lungs, and great Veins. The Stomach & Guts are generally found distended and the Abdominal Viscera obstructed and Enlarged, and often Abscesses are found in the Liver & Spleen, all which are owing to the Blood being thrown in greater Quantities into the Internal parts of the Body during the Cold Fit.

The Stomach & Guts have been found overflowing with Bile of which in these Fevers there is observed to be an Immoderate Secretion

15. We come next to treat of the Proximate Cause. and I shall take this opportunity to explain my sentiments on the General Proximate Cause of Fever. According to Boerhaave's Idea of Fever, which he makes to consist only in an increased Quickness of the Circulation, or Contraction of the heart, with an increased Contraction of the Capillaries, we should have nothing to account for but the increased Quickness of the heart, which might either depend on its increased Sensibility or an Increased Stimulus applied to it.
But there is something more than this there is an evident Debility of the Animal Functions, and an increased heat of the Body. We must therefore be perfectly masters of Muscular Motion, the Cause of Animal heat & the Nature of the Nervous Influence or power, which belong to the Physiology, but I will say that no full Account of these things has ever been made at least to my satisfaction.

2. Fever has been by many considered as merely an Effort of Nature to throw off something morbid or hurtfull to the Constitution which however would in many Cases appear to be an Hypothesis not founded in fact; tho' in many others it's an undoubted truth. When a fever does one subsist that there is an Effort of Nature to throw off this I willingly Acknowledge.

3. The Sthalians and Stuwage consider two principles in Fever, viz something that has a Tendency to destroy the Nervous Power, and the other an Effort of Nature to throw off this morbid Cause.

4. The full proximate Cause of Fever must be such a one as when present, constantly and uniformly produces its Effect; if not so it will be only an exciting Cause.

There often appears to be a predisposition especially in Intermittents, which lies long latent in the habit, here the Union of this with the Occasional Cause may constitute the Proximate Cause. But the quest

great Difficulty is what part of the habit is morbid in this Case or forms the Predis position; and another Difficulty is, the Cause of the Periodicall Return of Intermit. Fevers

d. In searching for the Cause of Fevers we look for it in some thing vitiated either in the Solids, the fluids or the Nervous System; this includes vitiated Secretions and increased Determination of Blood and Nervous power. It is never alledged that any visible Change in the Solids can produce Fever. It has been sought for in the fluids, & the general Theory has proceeded upon the Supposition, that something morbid has acted as a stimulus to the heart; we shall therefore enquire into this supposed Ferment of the fluids which it's necessary to do as the Practice has been very much adapted to it.

E. Supposed in the first place from Lentor because in all fevers there was a morbid Lentor in the Blood, in consequence of which a Deposition in the Blood to Stagnate

stagnate, or at least to move with Difficulty thro' the Capillary Vessels, which resistance acted as a stimulus to the heart. By Lentor they meant too great thickness or Cohesion of the red Globules. This is Boerhaave's Theory along with an Inertia Liquid. Nervos.

It has been also said that the Bloodes of Different Degrees of Density, in the Different Stages of Intermittents, that it's thickest in a Quotidian & most Dissolved in a Quartan.

Z. This however is purely Hypothetical, for we often find Fevers connected w^t a morbid Tenuity of the Blood as well as with a morbid Lentor. The marks also from which the Supposition is commonly taken vizt the Appearance of the Blood, are often present when the Patient has no fever at all; as in the Chronick Rheumatism, in all women with Child, almost in every person, sooner or later, in the winter time. Yet we dont find that people in those Circumstances are a bit more liable to fever than at any oth^r Period. This therefore cannot be

be the full proximate Cause of Fevers from the Definition of the Prox. Cause already given. Besides Hydropic people whose Blood is thin and of a loader Texture are offener subject to Agues. Neither is the Notion of different States of the Blood in different Species of Agues raised on any solid foundation. For in Agues the Blood in general does not seem to depart very much from its natural State, except in several Cases a little to the Inflammatory & putrid Diathesis. Again if Lentor were the proximate Cause, the proper Cure of Agues would be by Diluents, and Attenuants, but this is not the Case. We have many Cases of an Ague changing its Type, through the Course of a mercurial Salivation.

7. One of the most common exciting Causes of Fevers is an obstruction of the Perspiration, in consequence of which they say a Plethora is brought upon the System and the retaind acrid perspirable matter acts as a stimulus. That cold when a person is heated is a very generall Cause of Fever

is not to be doubted but the above Conclusions do not follow.

It is very difficult to form any Conclusion with regard to perspiration, as there are certainly vessels in the Surface of the Body which inspire & therefore unless we know the Qty of matter inspired, we can only know the Excess or difference between the Quantity perspired & inspired. But supposing a Sudden Check is given to the Perspiration, there is great reason to believe that it would be increased in other parts proportionally or if we suppose the Spasmodic Structure to be extended over the whole surface System may we not very reasonably apprehend that the other Secretions will be encreased in proportion. But the simple Plethora occasioned by the retain'd perspirable Matter can never be the Cause of fever by itself, as in many Cases when we know Plethora is present it produces no Fever. Besides it is to be observed that there is not always that very acrid Quality in the Perspirable

hers perceptible matter commonly supposed; for it is very variable; greater in a warm than cold Atmosphere & in a warm than cold Climate. All the Year taken together, the Perspiration & Urine Ballance each other; and in consequence of this some Medicines prove either Diaphoretic or Diuretic according to the Degree of heat the Patient is in. These two Evacuations also resemble very much in point of Quantity. Now we know that the Secretion of Urine may be stopt a long time without any bad Consequences, being otherwise ballanced; & that even after it is secreted into the Bladder yet when a person is much heated as in dancing, the whole shall be absorbed into the Maps of Blood, and paps of by Perspiration without any bad Effects. We know also that the liquid Fæces, which are of the most putrid kind, may be absorbed without any bad Consequence.

The Bile too which is one of the most acrid Secretions, may be reabsorbed and the Maps of Blood greatly loaded with it as in the Jaundice without producing any fever. Moreover in a Room full of Company, it is

is certain the perspirable Matter must be very copiously diffused in the Atmosphere and consequently a great Quantity of it must be inspired in the Vessels on the Surface of the Body, yet no one is generally hurt from this Cause tho' he may be going suddenly into the Cold Air

The Retention of the perspirable matter also, cannot be the full Proximate Cause of Fevers, particularly of Agues, because, the Effect does not always proceed from it and therefore it may only serve as an exciting Cause.

In General we ascribe too much to Perspiration and are too much affraid of it's obstruction Sanctorius reckons it 5/8 of the Ingesta but this is greatly too much, In several Climates the People go almost naked, and yet enjoy Vigor & health and in warm Climates, where the Perspiration is more copious and acrid, it is the practice in many Nations to cover the whole Body over with a very thick Paint, which must stop it very much, tho' it will penetrate common oils, & yet these people do not at all

all suffer in their health from this Practice
Besides the most delicate of the human
kind the women keep their Naks & great
part of their breast quite bare, without
any inconvenience tho no doubt in these
Cases there is a great deal in Custom
The Prepossession with regard to Pers-
piration certainly enervates the Constit-
ution of many in this Climate by keeping
themselves too warm & such an general
sweating the most sickly

In some fevers also we find the
Pores stand open and the Patient dissolved
in sweats tho' no doubt there generally
appears to be a suppression of Perspira-
tion in fevers from the dry parched feel
of the Skin. If it were true likewise that
these were the most common Causes of Fevers
we should find Fevers prevail most in the
Summer time because the Perspiration
is then greatest and most hard & the habit
more mobile, and therefore more subject to
sudden Checks of Perspiration but this
is not the Case

Ag to any little Plethora that could be induced thus, it must be soon removed by the Evacuations in the beginning of Fevers and the total abstinence from food. See Rush's on this subject in a late Essay of Dr. Chalmers of Charleston.

16th It has been said again that Fever is owing to Putrefaciency in general, this they prove in the first place from Agues prevailing most in Consequence of heat & Moisture which much encrease Putrefaction. 2d: that any Putrid fomes acts as an assimulating Ferment and so produces fever. 3d Because Agues are cured by Evacuating putrid humors and by Antiseptics but Putrescency alone is not sufficient since we sometimes see it every finded in the highest Degree without fever. 2d There are fever and Agues without the smallest marks of Putrescency and they often arise suddenly from violent affections of the mind from catching Cold and have the Inflam. Instead of the Putrid.

Natural Deathness; 3 In the Island of Formosa where the Atmosphere is moist & hott & full of Fog & Miasma; there are no Intermittents; 4. Intermittents are cured by violent Passions of the Mind by Electricity, & the Bark before any Alteration could be supposed to take place in the Alteration of the Fluids from their Putrid State. 5th Intermittents are cured by Tartar which are certainly Opposite & therefore mere Satisfaction

There have been a specied of Fevers particularly of Intermittents as putrid Bile or vitiated any way; some Disorder of Stomach, Liver or Duodenum; this is Sonnas Hypothesis his reasons were these

1. There is generally a great aus Tawness of the Byle 2dly There is a great Secretion & Absorption of it as appears from the Eyes Urine & Skin. 3dly It appears that the Liver & Abdominal Viscera & particularly the Stomach are the Seat of many of the Ills we Men have that have dead the Stomach has in Man made. But in Answer to this the Bile could not be so soon removed by the Bark &c

without accasioning any Evacuation & we do not find a Redundency of Blood produce fever vago; as in the Cholera Morbus & Jaundice In the next place Emetics & Cathartics which evacuate the Bile, have the Effect of ending Intermittents, more Obstinate & the yellowness of the Skin & Lateritious Sediment in Urine wanting; further it will appear that Obstructions in the Liver is rather the Effect than the Consequence of Intermittents; besides were it owing to Bile the Disease ought to be continued since the cause always subsists the Effects should always follow; however tho' the Disorders of the P. V. be not the full Proximate Cause of the Fever yet they may be reckoned ~~External~~ exciting Causes

Next Morbid Matter with an Assimilating Power has also been supposed the Proximate Cause of Fever; they also suppose a certain Ferment effected in this Morbid Matter preparatory to its Expulsion, which they are pleased to call COCTION after which it was expelled the Body by critical Evacuations or the same

because when these take place the symptoms generally abate; this Theory at first sight is delicious. And that there is such Matter no one can doubt as we evidently see it in the small Pox and Contagious Diseases. Dr. Pringle considers it as a certain degree of Putrefaction induced on the Fluids by which they are rendered more fit to pass the small Vessels. But this Assertion of Morbid Matter is so general & in such terms that we cannot refute it. That there is such a thing in some fevers no Body can doubt; but in Intermittents particularly & other Fevers particularly have it been proved when it could not be proved; they have recourse the length of determining it to be Alkaline or Acid and according to this Supposition adapted their Practice. But I would observe that these Evacuations which carry off an Morbid; neither does it appear that Matter of Particle Abscesses is Putrid more Morbid or Acrid, on the Contrary the Pus in Particell Abscesses wou. alkaline rather Acid.

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[illegible] further that it has been
alleged and proved that morbid matter
the Patient discharged by the Stools was
the proximate cause of Fever; and that there
was no positive Proof of this only that then
symptoms coming on the Fever abated & that
in the Stools themselves there was no
mark of Acrimony; But there are many
Instances of Fevers and they Hemorrhages
now & cant be supposed that this Author of
Plaid Manuale contains all the morbid Matter
this is altogether against the Laws of the
Circulation; neither are critical Fevers
attended with Griping or Critical Diarrhoeas
because there is no Stimulus on the Skin which
would be the case if this was true; at the same
time there are often evident marks often
many when no Fever takes place; yeill some
times see the eruptions of a Pin feather & an
an obstinate Ulcer; Also in the Application
of Blisters when the Serum is so acrid as
to excoriate the neighbouring parts & yet
no Fever ensues; at the same time [illegible]

fraction to suppose that there is no Morbid matter
the excretes in the Blood; but only that no par
ticular Matter can be condescended on that
can furnish the least Indication of Cure
The supposition of Morbid matter has led to
consequences and Practice very Erroneous
first introduced by Van Helmont & his followers,
and even after the Theory was exploded the Prac
tice continued & a Medicine much in Repute
is the Pearl Powder which to say no more is
very insignificant. But Sylvius in all Ages
after Theory of Morbid Acid in the Blood, gave
the testaceous Absorbents which often do
very much hurt, Dr Bingle again did
not found his Practice upon his own Theory
instead of this I would recommend a scene
of the best Practical Books I know
With regard to this Theory of Putrefaction
we may observe 1. That Critical Evacuations
exhibit no Marks of Putrefaction
2 Their nature is so far from being a Mark
of a Salutary Critical Evacuation, that they
oppositely evince a Degree of Consistance & Coagulating

necessary, is necessary to make a Critical Evacuation Salutary, instanced in a common Catarrh Pleurisies & Peripneumonies going off when the Menses always acquires a Redness & Roseness the same is true of Abscesses Ulcers & the Gonorrhoea

3 I observe that Putrefaction induces Acrimony; yet there are no Instances of the Fluids becoming more Acrid as the Caction advances

4. The Bark promotes Coction or the proper Digestion & Maturation of the Matter in the small Pox & Ulcers & Gangrenes whereby it promotes the Suppuration & converts the Matter into laudable Pus: The Barks are Cures specific to this. This Theory if just should lead to a not very proper Practice in Fevers, viz. the giving Acids in large Quantities & keeping the Patient extreme Acid hot; I do not say that any such Consequences are drawn by Dr Brown for I think his Practice the best to be met with in any Author what soever & which I would recommend to your Imitation —

5. All

4. All these Opinions therefore appear to be Hypothetical, and none of them can be considered as the full Proximate Cause of Fever, but all of them may act as internal exciting Causes. As therefore the Proximate Cause of Fever is neither in the Solids or Fluids we naturally seek for it in the Nervous System. I mentioned that Boerhaave added to his Theory the Inertia of Nervous but this Phrase is very Ambiguous & is not a full Cause. For we do not find those that have been exposed to Agues in any remarkable Manner especially Hypochondriac People who have also very great Degree of Lentor in their Blood. Predisposition to Agues is rather connected with too great a mobility of the Nervous System.

The Cause then of Fever has been referred to a Spasmodic Constriction of the Capillary Blood Vessels by the Athenians & Hoffman. That there is such a Constriction especially on the surface of the Body appears perfectly evident in the Cold Fit of Fever; which is said to act as a Stimulus to the Nervous System & produce the Hot Fit & that the Continuance of this Spasmodic Constriction was

the Proximate Cause of Fever. But still we may ask what causes this Spasmodic Structure, this has been referred to debility of the Nervous Power or Sensorium. That Spasm is often connected with Debility & Atonia is very certain but I think not inseparably. For the evident Construction of the Capillaries in the Cold Fitt appears only at the beginning of Fever when the Patient is still Vigorous. There is indeed a Debility of the Nervous power which is not connected with Bodily weakness, for we often find people after a long Fever reduced to the greatest Degree of weakness & yet enjoying very good Health. The Debility of the Nervous System again is particularly connected with Spasm tho it often also produces Palsy, as therefore Debility may exist without Spasm & this without Debility; this cannot be the full Efficient Cause of Fever.

But supposing this the Cause the Question still returns what produces this Debility of the Sensorium? but for what I know this had never been attempted to be explained

Supposing the Spasm in the beginning of the Fever to proceed with the Cold Fitt; it does not appear that

that the Cold Fit produces Fever, for then there would be no Fever without a preceding Coldness, but we often find Fever begun without any preceding Rigor, or apparent Constriction of the Capillaries Also of the Fever men entirely the Consequence of the Spasm when the Cause was evident so aught the Effect to be, but this is not the Case always for there are some Instances where the very Reverse takes place particularly in some Intermittents 2 Spasm & Coldness of the Surface does not of itself produce Fever; for the Application of Internal Cold evidently produces Spasm, but this only an agreeable warmth & not Fever, as in the Case of Cold Bathing. 3. During some Fevers there are no Apparent marks of Spasm in any part of the System, except you Consider the increased Contraction of the Heart as such & the Patient is constantly sweating, & this in Fevers of the worst & most Dangerous Kind; External Cold also instead of causing any Depression of the Nervous System, is one of the most powerful Exciters of the Nervous Power & hence the Cold Bath in most people acts as an Exciter of the System as power

powerfully as wine; but the Febrile Cold very much depresses the Animal Functions.

There is therefore in Fever some Cause which acts on the Nervous System in Consequence of which the Heart is irritated to more frequent Contractions, which occasions irregular Circumvolutions of the Blood & Nervous Power deranging the Functions & Sensations & produces the other Phenomena of Fever

The Particular Reasons that shew this in Intermittent Fevers are as follows. 1. Because the Patient previous to the attack of the Paroxysm is often sensible of Disorder whatever which could not possibly be the Case were the Cause in the Fluids 2. We find that Intermittent Fevers are both produced & carried off by sudden Emotions of the Mind which at least is denied that Intermittents may be produced without any alteration in the Fluids. Thus the Paroxysm of an Ague may be produced by close Attention to the Mind & may be produced by violent Emotions of the Mind sometimes cured by plunging suddenly in Cold Water &c. At the same time it must be observed that in most of these Cases where it was produced by sudden Emotions of the Mind the Semenium had been before present in the Constitution. 3 Intermittent

Fevers

Fevers are often produced by convulsive & Apoplectick Diseases which are evidently seated in the Nervous System. The Patient has also a most wonderfull Degree of Acuteness during the Paroxysm. 4. An Intermittent sometimes seizes a person during a Salivation & continues during the course of it which is a presumption that the Cause is not seated in the Fluids. 5. Intermittents are most obstinate in those that have the greatest mobility of the System & hence happens to young People such as are fatigued or have undergone great Evacuations. 6 The same good Effects produced by the Bark are tho en a less Degree produced by it in Nervous Diseases especially Periodicones. 7. Palsys & Epilepsies are often cured by Intermittent Fevers. 8. The Fits may be prevented or ameliorated like all other Convulsive Disorders by exciting a very acute Pain or violent Commotion of the System from any Cause whatever. 9 Warm Ointments applied to the Skin often have the Effect to prevent a Paroxysm which could only be from their Effect on the Nervous System. In Cold Countries where the Nervous System is less mobile Agues are less frequent, but the Contrary happens in warm Countries. 11. Intermittents are

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are cured by those things that have a Tendency to brace the general system, as the Peruvian Bark which produces its Effects before any Change could be induced by it on the Fluids.

The Predisposition therefore of Agues probably lies in the Nervous System: This latent Semineum appears likewise to be the Cause that determines the particular Stages of Intermittent; tho' the Semineum of all appears analogous because the different Stages of Agues pass into one another. The Proximate Cause of them & Continued Fevers likewise appears Analogous from their changing into one another. Many Nervous Diseases & some Continued Fevers are referred to the Class of Agues because the leading Symptoms resemble & this and Method of Cure is successfull in both for this see Sydd & Mercatus & has of late become the Practice in some Continued Fevers to throw in a Quantity of the Bark at the Exacerbation & with great Success of which more hereafter.

I shall here take Notice of a remarkable Analogy betwixt Intermittent Fevers and the Gaut; they resemble one another in their sudden Infasion, in the general Irritation they bring upon the whole System, in being often Periodic brought on by violent affections

of the

of the Mind, Errors in Conduct, in Relieving the Patient of many Diseases, and the present Paroxysms being remained at the same time that the Demonium remains in the Constitution.

Ratio Medendi. Symptomatum.

Most of the Symptoms in the Cold Fit may be accounted for from the Spasmodic Stricture which takes place on the whole System & from the weakened Action of the Heart; such as Palness Dayness & Corrugation of the Skin Diminution of the Sensations & Insensibility to Stimuli. These may be accounted for from the above Cause & Debility of the Nervous Power. The Anxiety Oppression of the Precordia are probably produced by the Accumulation of Blood on the Internall Parts owing to the Spasmodic Stricture externally but this cannot produce it alone else External Cold should have the same Effect which we know it has not. It has been thought that the Blood being propelled in greater Quantity makes it more irritable & causes it of Consequence contract before the Ventricles are quite full by which they account for the weakness & quickness of the Pulse. This was Dr Wohyles Hypothesis; but I apprehend there is something more than the mere internal Determination for! the particular Affection of the Nervous

Nervous Power. But that the internal accumulation does take place is very clear from the Dispositions of those that have died in the Cold Fit. In Consequence of this there are certain Instinctive Motions excited by Nature to relieve the Body from the Oppression. There are Stretching Yawning Jactation & perhaps Trembling; The Pain of the Back appears to be Nervous & generally arises where the Center of the Mesentery & Duodenum are tied to the Back.

The Sensation of Cold itself is evidently a Nervous Symptom & is produced on several other occasions which shew this as by Affections of the Mind by the passing of Stones from the Biliary Ducts into the Duodenum, sounding with a Catheter, all internal Suppurations, and generally Shaking always attends their breaking; by attempting to introduce a Glyster Pipe in some affected with the Piles. The Headach may be partly Nervous & partly may arise from the Stomach which in Agues seems principally affected. It may also arise from morbid Congestion. The Nausea & Vomiting sometimes proceed from the Regurgitation of the Bile into the Stomach becoming Putrid, at the same time they are often merely Nervous Affections &

& independent of the Contents of the Stomach.
In all the stages of Fevers the Brain & Nerves are the seat of the principal Symptoms & in all kinds of nervous Complaints the Stomach indeed suffers more or less, and all Complaints of the Stomach do affect the nervous System. The Thirst seems to proceed from a want of Secretion of that Liquor which continually moistens the Throat.

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The inward heat in the Hott Fitt has long been ~~ascribed~~ ascribed to the Mechanical Attrition of the Fluids against the Vessels; but it would rather appear owing to Chemical Motion; It seems to depend on some Reaction of the Constitution not yet explained. But what is it is the same as heat in Health; the same Acts but only in a stronger Degree. The Fullness of the Pulse owing to the Phlegm being removed & the Rarefaction of the Blood; The Headach from an increased Determination of the Blood; The change wrought on the Urine appears to be owing to the Phlegm being taken off from the Organs secreting it.

No good Explanation has been given of the Cheat of the Fitt, because it's no necessary Consequence of Hott Fitt as has been supposed. The Infarctions seem to have any Connection with the

the Disease & are probably owing to the Determination of the Blood to the Viscera; & the Abdominal & Thoracic Bothoudenaire from the same cause.

As to the Regularity of the Returns of the Paroxysm no satisfactory account has been given. It has been supposed that the Morbid Matter has been expelled by the Bowels by Degrees & that the Remainder acted as an Accumulating Ferment. but this is a mere Hypothesis; besides the Febrile Symptoms should be violent in proportion to the Accumulating Cause. Many of the Phenomena have been found inexplicable as the Muscing of a Paroxysm & returning next at its stated hour; why a Quartan should be more obstinate than any other kind Intermittent & generally only seize People once in their Life: I shall only observe that it seems to be a law of Human Constitution that all the Natural Appetites & Secretions should return at stated times, as of Hunger Sleep, the Menses &c. & that every person even in best Health is seized with a Feverish paroxysm twice in 24 hours, at Midday & Mid Night, ~~at the same time~~ at the same time there may be much modified by Habit

I now shall treat of the Cure

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CURE.

This has been generally thought a very easy matter & so it is commonly yet they are sometimes very obstinate. Intermittents have been cured by Remedies Diametrically opposite. It requires great Judgement from the Variety of Cures to select the best.

The First Question is whether the Disease is to be left to nature (for sometimes Agues are Salutary & shew strong Tertians) or to be cured by Art? Besides that there is no present Disease in the State but small Perhaps go off Spontaneously about the 7th Revolution In Temperate Climates Physicians don't Choose to stop Intermittents till such time as they are quite Formed; at the same time the longer it remains the more Obstinate it is & always Physicians Endeavour to palliate Symptomatic Evacuations. How can not arise from a full knowledge of the Proximate Cause; as it is not yet discovered; whether we are to proceed on this Plan or are we to suppose it as throwing off something noxious from the Constitution?

If the Disease is left to nature the whole Business of the Physician is to modify the Symptoms, assisting her weak endeavours & restraining her too violent Commotions. The Jesuits effectually

spoiled by encouraging the Hot Fit, by Cordials Blisters Sudorifics &c. 2 By Evacuants and Antispasmodicks. The Cure of Intermittents consisted in this before the Introduction of the Barkinto Europe; but now we can proceed more effectually in another way without the least Danger which is to stop the Paroxysm at once.

This has been attempted in a variety of different ways as

1. By inducing an Artificial Hot Fit by wrapping up the Patient, by warm diluent drinks & other hot Sudorific Medicines, Warm Bath sometimes the Cold Bath and violent Exercise; some time before the Paroxysm should have come on

2. By exciting violent Commotions in the System thus disturbing the natural Course of the Disease, This was Dr Sydenhams Plan & he sometimes gave a violent Cathartic before the Fit; Vomits & violent Passions of the Mind do the same; as also Cathartics joined to Opiates & some Mercurial Preparations.

3. By the strongest Antispasmodics particularly Opiates.

4. Bitters of various kinds

5. Astringents.

6 By Specifics by which I mean in general all

generall Medicines producing their Effect without any sensible Evacuation; but to what Quality in the Medicine the Effect is owing we know not; as the Peruvian Bark which properly deserves the name

7. By Externall Applications.

I now proceed to give you my particular Sentiments upon these various Remedies.

Tho' the Proximate Cause is not fully known yet this is not so very great a loss to the Physician Practitioner because we know how to moderate & exert it.

The first is done by Bleeding; but this in general is not at all necessary unless to palliate the Violence of particular Symptoms; It neither stops the Paroxysm or makes the Cold Fit milder. In Plethoric Patients & when the Intermittent is connected with Inflammatory Diathesis Bleeding becomes necessary to palliate the Symptoms of the Cold Fit, otherwise Inflammation might be produced in the Brain & other fatal Effects follow. It has been observed that intermittents connected with Inflammatory Diathesis, when the Bark has been prescribed antecedent to Bleeding they have changed into Continued Fevers. A Double Tertian has been converted into a Single Tertian by Phlebotomy

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When ever the Head and Heart are violently affected Bleeding becomes absolutely necessary & is most properly used in the Hott Fitt, the Effect of it is to lessen the Velocity of the Fitt & make the sweat come out very copiously which Effect it has likewise in continued Fevers & often in them carries off the Fever wholly, but abstracting from these Circumstances Bleeding is absolutely useless & even hurtfull especially when there is putrid Deathness or when the Fever has lasted long, perhaps its of no great Moment whether the Patient is bled in the hot Fitt or in the Intervalls, some advance in the Cold but I can see no reason for this at all. The use of Bleeding has been much Questioned in Quartans yet there are a few Cases of its being successfully applied in them; I should not think it a good Practice tho'.

The Evacuation that is most generally used is Vomitos after Bleeding if necessary. Vomitos are given to cleanse the Stomach but this is not their Effect; they promote the Secretion by the Skin, are Antispasmodic & prevent Obstructions in the Abdominall Viscera; they powerfully stimulate the Nervous System and often carry off the Disease all at once. When this is their Effect it's

its not easy to say to which of their Operations we may ascribe it. It is generally thought necessary to give a Vomit before the exhibition of the Bark. The best time for its Exhibition is that its Operation may be over before the Febrile Paroxysm begins; if an Opiate is given after the Fitt is often stopt; the Vomit should be washed off by Chamomile Tea or Infusion of Sarduus rather than by large & repeated Draughts of warm Water than which nothing more weakens the Tone of the Stomach. The Practice of many has been to give the Vomit during the Cold Fitt; this was done by Celsus, Essig, Sydenham & Thomson, what has given Origin to this Practice is the Pleasure & sometimes actual Vomiting in the Cold Fitt; this they have taken as a Natural Indication at the same time there have been very bad Effects from this Practice. If the Cold Fitt is very violent, delicate Habits are very apt to be hurt by what excites a very violent Commotion in the System. Emetics in small Doses so as to excite a Degree of Nausea have prevented the Fitt. To this Purpose Emetic Tartar has been used Also James's Powder which has been in great Reputation, tho'

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the Emetic Tartar is now proved to be the better Medicine. The generall effect of this Medicine in small Doses is to operate by Vomiting Stool & Sweat. Debauch is a great Enemy to Emetics of every Kind in Agues & continued Fevers; he considers them only as cleansing the Stomach and attributes bad Effects to them in other ways from a false theory of his own. A Physician is not to take the Indicat.ⁿ of repeating the Vomit from what is voided for that would be no End in this as the stomach always appears foul & the same Sordes would shew itself were the Patient to be vomited 3 times a day & Repeated Vomits weaken the Tone of the Stomach. If the Emetic do not act downwards a gentle Laxative is necessary to cleanse the Intestines: & more especially in warm climates to prevent the Stagnation & consequent Putridity of the Bile; Violent Cathartics have been exhibited sometimes & prevented the Recurr.ⁿ altogether this was Sydenhams Method of treating Vernal Agues but is now laid aside as being too very rough. In Warm Climates

Oct. 10 In warm climates Physick may be given
Nov. 21 & is necessary to carry off the Bile & putrid Col-
1769. -lowes that lurks in the P. N. which if left
alone might bring on Inflammations in
those parts from its Acrimony, & the warm
-ness of Country; or cause a Cholera Morbus
which would render the Patient exceeding
weak if it did not prove altogether fatal
In every case or Climate we should endeavour
to keep the Belly open and prevent Costive-
-ness, which is very apt to turn it into a
Continued Fever.

If Intermittents run into Continued
Fevers, bloading and a gentle Laxative
are necessary, to reduce it to its Ty-pe again
which they seldom fail to do; but the blood
-ing should not be often repeated, because
it is very hurtfull by prolonging & rend-
-ering the Disease very obstinatt.

Many Authors advise to give strong Acid Ca-
-thartics, but these are very apt to bring back
the Ague and make the Patient relapse.

relapse, sometimes indeed in warm climates they become necessary. But in generall no smart Physick should be given, in this case then the Belly should always be kept open & if the Agues stopt by the Bark its frequently necessary to give a laxative after & when there is a great Tendency to Costiveness a Laxative should be joind with the bark, when the Guts are weak Rhubarb is very properly given along with it in such Quantity as will keep the Belly gently open.

We find some Instances of Agues being cured by strong Stimulating Purgatives, but this is a very bad practice in generall & the Effect of this was more owing to the Peculiar Stimulus applied to Nervous System. We have undoubted instances of small Doses of Rhubarb and Calomel having cured Intermittents even when the Bark has failed, and in some obstinate Quartans Mineral Purging waters have been

been the Cure, but there are Cases where the exciting Cause has been obstructions in the Abdominal Viscera.

Antimonial Cathartics are certainly best because they often operate both by Vomiting & Stool; and James's Powder, has been generally preferred, but we should be cautious in giving it because the Cases are not carefully enough weighed some of them contain more than XXIV gr. & besides when the Dose is over great it's operation is very violent, we should therefore give it in small Quantities a nd gradually encrease them. If the Intermittent begin in the form of a continued Fever the Antimonial Medicine will reduce it to its proper Type. But in my Opinion Emetic Tartar is preferable to Antimonial Wine or James's Powder. These Medicines are very efficacious in Cases where there is a violent head ach attended with Stupor, Coma &c. when they are given in such Quantities as produce sensible Evacuations to the up

up and down, and when given in small Doses often repeated they seldom fail to do this, but sometimes they produce no Evacuation only bring on a Nausea & act as febrifuges, for they often carry along with them the Disease

In Intermittent fevers when there is a Diarrhoea Tartar Emetic is given with an Opiate, the opiate prevents the Inera of the Diarrhoea, does not hinder the Vomiting & promotes a Diaphoresis

Alkalies, nor Absorbent Earths should never be joind with Emetic Tartar because they decompose it

We next come to Sudorifics, ~~and they~~ and they are given with two different views either to assist Nature or to prevent the Access of the fits. To accomplish the first we give the Patient plenty of Diluent drinks before & during the Cold fitt, as Decoction of Bardana, Sarsaparilla, but a weak Lemonade or water & lemons with a little

little Rhenish wine is far more pleasant
In Phlegmatick Constitutions, and cold
Climates a Tea Spoonful of Sp. C. C. among
warm drink every half hour is given
with very good Success to procure a Co-
-pious Sweat, but in warm Climates
'tis too hott a Medicine. The Neutral Salts
as Sal Amonon. Cred. Sp.t Minderer. and
Saline Draughts, are exhibited Success-
fully to bring out a sweat in both hott &
Cold Fitt. 'Tis a common custom to make
Patients drink vast quantities ~~of drink~~
before the Fitt & in it, but nothing weak
-ens the Stomach more than the swallow
-ing these deluges of fluids, it likewise
increases the Anxiety. But at same
time necessary they should drink very
plentifully, or the Disease will be apt to
turn into a Continued fever or an Inflama-
tion be the Consequence especially in
warm Climates, however they may

take less at once and repeat it frequently which will not hurt the Stomach at all and is easier & more agreable for the Patient. The Spanish Physicians allow no drink or very little.

In warm climates during the hott fit they give cold water in little Quantities & often to drink which proves the most effectual Sudorifick; but if there is any reason to believe the bowels inflamed it cannot be given. In Italy & Sicily they drink the water in the hot fit & it proves very efficacious & highly useful to them.

The other method of sweating, with a view to prevent the return of the Paroxysm is this. They give them pepper and Spirits which in Phlegmatick & old people may have no bad effects: but in general its a very bad Practice, for it turns the Ague into a continued Fever attended with violent Headach. Theriaca & Serpen.

Serpentary are often given with the same view, tho not abill more proper, none of these ought to be given in Infarctions of the Viscera. Guaiacum Decoction has been ordered before the Accession of the fitt & during it, but its too acrid to be exhibited at all. A very great Quantity of Drink induces a habit of sweating as well as weakens the Stomach,

Its a practice that still prevails among Physicians never to shift a Patient while he is in a sweat, but I can say from my own Experience its wrong to let them soak in sweaty Cloths & they may get clean linnen at any time of it, provided they be shifted with Caution. For we know Linnen can absorb but a certain Quantity, therefore some of it must be absorbed again by the Inspiring Vessels which certainly will have no good Effect and besides soaking in sweat Relaxes the habit very much & encreases the Mobility

Mobility of the whole System, it likewise increases colds by exhalation & impedes instead of increasing Perspiration.

There are two kinds of Sudorifics Stimulating and Antispasmodic The Stimulating Sudorifics are generally hurtfull in Fevers, & the Antispasmodick are frequently attended with safety & Success one of the most powerful of which is the warm bath Dovers Powder is one of these. Dr. Sydenhams Practice of sweating was too rough.

The Cold Bath has been tried & in Northern Countries it is customary to plunge the Patient among Snow & then immediately to roll him up, but this is certainly a dangerous way of preventing the fitt.

In those Agues where there is no Cold fitt Sudorifics are found Successfull & generally are the only cure

Dr. Boerhaave cured Vernall Quartans with Vegetable Juices as Grape Roots.

Roots, what probably led him to this was that he observed Cattle in winter, labouring under calcalous disorders, but upon going into feilds & eating the tender Vegetables they were purged of these & had a sort of Diarrhoea.

The success of Alkalies and Absorbent Earths, depends entirely on the Acid in the Stomach, if they meet with any Quantity of it there they are converted into Neutral Salts or imbibed it.

Antispasmodicks have been tried in different Periods of Intermittents with a view either to stop or shorten the fitt and the most powerful of these is Opium which if given before the fitt about the time we give a Vomite, has the effect at lest of making the fitt much easier if not altogether to prevent it.

But Dr. Lind has prescribed Opiates in the hot fitt with the best Success which I have

is a discovery of considerable importance because the hot fitt is in general most dangerous, and he says that it shortens its duration, and abates its violence, that next it eases the head ach and ~~abates~~ promotes sweating and procures a refreshing sleep after all. He farther says that it prevents the jaundice dropsy & other bad effects of obstructed Secretion. If there is a delirium he advises not to give it till it's over, & then it's highly useful in removing that weakness that constantly follows. It moreover is the best preparative for the Exhibition of the Bark, because it promotes a sweat which very much disposes to more perfect & regular Intermissions & hence for the throwing in of the Bark. If Costive let them take a dose of Ra. Sacr. and the Bark & Opium may be immediately given after, for the Opium will not prevent the operation of the Tincture and the Bark has a known tendency to assist it.
Dr. Stork has prescribed the Geoniatum in Agues & I have it in under the head of Opiates.

We next shall speak of the Diet & Regimen proper in Intermittent fevers.

The Diet in general should be of the generous kind rather than the vegetable but especially in obstinate Agues & to old People Celsus method has been tried with very ill success, he enjoin'd Abstinence from food for the first 14 Days of the fever.

In general Animal food of easie digestion may be allowed in moderation & I never saw any bad Consequence from it, but in warm Climates, the Vegetable is preferable as it is more opposite to Putrefaction & their fruits are excellent coolers.

When Cordials are necessary some generous wine with a Seville Orange is the best I know and the most grateful.

Under this head I may observe that change of Air or Climate prove very effectual in curing the most obstinate Agues.

The Cold Bath too has been known to cure very obstinate Quartans & is a good prophylactick against a Relapse.

Under the head of Sudorifics I mentioned the warm bath & it makes the Cold fitt considerably easier when the patient is put into it half an hour before its attack.

Exercise makes the operation of the Bark surer & if so violent as to raise a sweat will often prevent the fitt altogether. it promotes all the secretions & Excretions

Frictions have much the same Effect with Exercise, Stork mentions two Quart. that were cured by Frictions with warm cloths applied to the Spine.

We seldom give Blisters in Intermittens, but with a view to palliate particular Symptoms as to remove Coma, Stupor, & sometimes we find them cure it altogether.

All these Medicines have been ordered with a view to palliate particular Symptoms or to prevent a Return of the fitt. The most powerfull of the latter kind is the Peruvian Bark

Bark, which has been attended with more success in these Fevers than any Drug in any Disease I know.
It was first introduced into Practice about the Middle of last Century, but met with the strangest opposition from the faculty all over Europe merely from Theory wch is I think one of the strongest proofs that Hypothesis should never be depended on, nor blindly lead people against Experience. We are greatly obliged to Sydenham for introducing it into Practice Dr Boerhaave, who was an Admirer of Sydenham, did not follow him here, for he was no freind to the Bark, & for this reason, because he let the fever run on too long before he gave it 2 or 3 weeks & this produced Obstructions & Infarctions in the Viscera, when ever the Bark was given then, it was blamed for them, but had he given it sooner he certainly would have been convinced that it was not the

the Cause of these: Before the Bark was introduced into Practice there was no Cure for Quartans and indeed it seems rather to prevent the fitt than Cure it altogether.

In every Climate the Bark may be given with Safety after the 3 or 4th Paroxysm in generall, but in warm Climates it should be given immediately after the first fitt, because the second may carry off the Patient. Here again we seldom give the Bark till the intermissions are regular or the Ague formed, and we have generally time to wait till that happen without any ill Consequence.

In Cases where the Agues will remove other Diseases or their Effects will be Salutary we ought not to stop them with the Bark, only to palliate the most violent Symptoms, but if they are likely to run into too great a length or weaken the Patient too much, then we must stop them as the lest Evil.

Its safer

Its safer in generall to exhibit the Bark before any Putrid Collucies has taken place or been collected in the Stomach & Guts this prevents the Cause of such Congestion by removing the Ague and besides the Bark is a good Stomachic, promotes Digestion & Sweat, it's likewise Antiseptick, and it encreases the operation of Cathartics It may be given very safely even when there is a Jaundice and Infarctions of the Viscera which it cures with the other Symptoms of Intermittents.

I shall now give some Account of the Preparations, Doses & method of Exhibiting this Medicine, and first of its Prepar

We should always give the Bark in Substance if the Stomach or Age of the Patient will allow of it: but Children cannot take it in this form, & some weak Stomachs, cannot bear it, to these the Extract is usually given 12 gr. of which

which is reckoned equal to one Dram of the Powder.

There have been a number of Medicines given along with it, as Correctors, because Physicians thought there was some noxious Quality in it, but these are all useless in this Intention, however they may be necessary in some particular Cases, not as Correctors because it has no noxious Quality, but as Assistants.

That the Bark in substance is most efficacious appears hence, that the Residuum after Decoctions, which has been kept & given to poor patients has proved more effectual than the Decoction.

When given in the form of a Bolus or Electuary made with Syrup it always requires a larger Dose, than when you give the powder in a liquid Vehicle, the reason of this can hardly be given, unless that it is longer in dissolving in the Stomach. But its a

a certain fact that ℥vi. of the powder has more effect than ℥ss. of Electuary.

The first form the Bark was given in in Europe was ℥ss. of the powder infused in an English pint of red Wine for discovering which Dr John Talbot got a premium from the french King and indeed it's a very good way of exhibiting it; In damp seasons it should always be given with wine or Spirits if in form of a Julep one fourth of it ought always to be Spirits, & if made into an Electuary it should be with Brandy rather than Syrup, indeed Syrup should never be used but Mucilage, Extract of Liquorice &c covers its taste very well. It should not be given in too fine a powder, a middling small powder is preferable, because its chief virtue lies in its resinous part & hence too the Extract ought to be made with Spirits. There is nothing I know covers the

the Paste of the Bark so well as Sower Milk. As Children cannot take this in substance by the Mouth, some other way behoved to be fallen upon and in larger Quantities we find it proves a Cure if thrown up by way of Glyster, they may get of the Extract ℥ss. Dissolved in ℥iv. of water with some Olive Oil & some drops of Laudanum, for a Glyster. But ℥ij this way won't have so much effect as ℥ss. taken by the Mouth. They likewise soon weary of this way. And some as Dr Pye in the Lond. Med Essays. have advised applying it to the Skin in Holland cloth, and gives some Instances of its Success this way.
Dr Lind again and others advise foment-ations of it or baths, he says he has cured venerals by bathing them in a Decoction of it which seems probable enough.

When this Medicine appeared, the Period they gave it in was at the beginning of

of the Cold fitt, but this was soon discovered to be wrong, for it produced a great uneasiness about the Stomach, & therefore gave place to another method vizt. immediately after the sweat they begun to give it, and so continued at short Intervalls; but it is now universally allowed that the giving it 4, 5, or 6 hours before the Paroxysm is attended with the best success & certainly easiest for the Patient; we should never give it in greater Quantities, than the Stomach can easily bear.

In General the Quantity necessary to prevent a return of the Paroxysm of a Quotidian is from ℥ss. to ℥j. & sometimes more is required, but a Tertian will require from 1 to 2 or even three ounces.

In general 2 Drahms are sufficient for a Dose but it may be given in as great a Quantity as the Stomach will bear even to 1 ounce at a time.

In such Vernall Intermittents are require

require Blooding we should join with the Bark Sal Ammon. Crud. or
And in most Damp weather it should have some Aromatics join'd with it.

Physicians made it a rule never to give the Bark till such time as there appeared a Lateritious Sediment in the Urine, but there are some Cases when this never does appear, & in generall it will be proper to exhibit the Bark before this is observed in the Urine, least there should be infarctions in the Viscera &c.

There is no general Rule that I know of when to give it, unless it be when the Ague is formed or has a regular Intermission but it some times may to continue it a little after the Paroxysm has been prevented lest the Patient relapse; in Quotidians we should continue to give it less frequently 5 or 6 Days, & in some obstinate Agues two or 3 Weeks. In cases where the Stopping of the Paroxysm would be dangerous

dangerous, but a Palliation of the Symptoms is necessary we must give it in such Quantities and at such distances of time as will not prevent the Fit altogether but abate its Violence considerably. In warm Climates where Intermittents are apt after the first Paroxysm to run into continued & Putrid fevers, in the first intermission we should throw it in, in large Quantities as soon as we possibly can; In these Places we find the Bark invigorates the Constitution promotes sweating & Diarrhoas that are critical but stops colliquative evacuations of other kind. Does not at all stop Natural Evacuations of any kind as menses it renders the Urine pale without Sediment, having a Cloud in it.

At its first Exhibition it proves purgative, but this is easily prevented by joining with it 10 or 12 Drops of Laudanum

Laudanum; but sometimes we find it necessary to join it with Juice of Lemon and Laudanum which should be given during the Effervescence; we never give it in this form, but when it produces a Vomiting which in some Constitutions it does.

In warm Climates even when the P. V. are foul & loaded with a putrid Collu-vies, which has already produced an Inflammation of the Guts, we should here throw in the Bark as the only Remedy because these Congestions depend wholly on the fever & when not ceased they will of Course be prevented, unless we do this a Cholera Morbus will follow which a hundred to one will prove fatal.

If the Patient is of a Costive habit & the Tone of the Intestines weak we should join Rhubarb to the Bark, and when there is a tendency to Inflammatory Dia-thesis, Sal, Mirab Glaub. or Epsom Salts.

tates. And in generall I can see no danger attending it's Exhibition in all Agues, unless those where there was a prevailing Disease & Nature has employed the Ague as an Effort to get quitt of this prior Disease, and here it's Effects are generally bad & sometimes fatal, for it causes heat, Dryness of Skin, Difficulty of Breathing, Swelling of Abdominal Viscera, Diarrhoea, loss of appetite, Epilepsy Anxiety & Pains resembling Rheumatic Pains. It appears that these Effects are justly ascribed to it, because when you leave it off, they disappear and the Ague returns again.

But there are many Cases in which Physicians were apprehensive of the Barks producing bad Effects & Boerhaave was one of these. Some have denied it's specific Quality & say that it always occasioned a sensible Evacuation, that the Bark does not hurt the Constitution, may be

may be evidently proved by this that in a few months time a person was known to swallow the Quantity of 40 lb. & his Constitution was not a bitt impaired.

It has been a general Practice among Physicians never to give the Bark in Intermittents attended with Infarctions of the Lungs and a Cough, but from my own Experience, I can say there needs be no apprehension of its having bad Effects here; for in some Intermittents a Cough seems to be one of the Symptoms & along with the others it removes this too.

I shall now endeavour to give some reasons for the failure of the Bark in Fevers And 1. It happens frequently that the Bark is bad itself or adulterated,

2. It has not been continued long enough to prevent a Relapse.

3. It has not been given in sufficient Quantity at a time

4. It has been exhibited in an improper

improper form, or preparation.

There have been other medicines given wth an Intention to stop the return of the Paroxysm with Success, even before the Bark was discovered, called Bitters, & these chiefly were prescribed, vizt. Centaury Gentian, Absynth. Chamomil. but when we compare the Effects of these with the Effects of the Bark, they are not a bit more certain, nay their Effect are not near so sure, & an objection lies against them that they cause heat which in some cases as we have observed before does much harm.

But after all we must allow that the Bark has failed tho' all Caution has been used, and that some Quartans have been cured by Chamomile Flowers when it has had a fair trial.

There was a celebrated remedy prescribed by Dr Morton before the Discovery of the Bark of Chamom. Flowers, Sal. Absynth. & Ant. Deaph

Diaphoreticum; which was attended with greater success than the Bitters alone

When we order Bitters with an Intention to stop the Ague, they must be given in large doses, & unless joined with opium they will in such Quantities prove Purgative, and have a greater tendency this way than the Bark.

There is another Class of Medicines that have been successfully exhibited with an Intention to prevent the Return of the Fitt, viz. Astringent Medicines and the most approved of these is Alum alone which in England was much used with very good Success. Vitriol has been used with success in this Intention, but its not equal with Alum in efficacy.
Some have taken Cobwebs, in Pills, or Boluses & it has been known to cure it often.

Mercury has been prescribed by some with very good Success, but unless there a

are Obstructions in the viscera it will scarce be proper. Indeed we have several Instances where Rhubarb and Calomel have cured very obstinate Quartans. And Patients labouring under the Cachexia being taken with an Ague, have been cured by a Solution, & in those Patients it's remarkably easily raised. — Many have used Arsenick with great success they say, but Stork affirms that it makes Patients turn consumptive & that of four whom he tried with it three died of a Consumption of the Lungs. But certainly it ought not to be given in those as there are remedies of whose Effects we can be certain there is no danger. But it's being reckoned a Poison is not at all a reason why it should be excluded from the number of Medicines; Many things that were formerly reckon'd poisonous are now accounted the most efficacious Remedies. External Applications have been

Preventors of the Paroxysm, amongwhich is the cold Bath formerly taken notice of, and Stimulating Medicines applied externally as Blisters, Ranunculus pratensis; Bruised Garlick, or steeped Tobacco applied to the Pit of the Stomach, are the chief of those that have proved most effectual. And Ol. Succin. rubbed into the Spine is one of those that seldomest failed.

The last of such things as prevents the Paroxysm, are Strong affections of the Mind as violent Passion, Fear, Anger &c. I have frequently cured Agues altogether, And the force of Imagination, to which only we can ascribe the Vertues of Charms Amulets &c. and which there are many Instances of their Efficacy in these Fevers well attested, has been often a Cure without any other Medicine being used. I wold ascribe the Vertues of Spiders, Snuffs of Candles, Urine &c. to this, & their Efficacy is well attested likewise.

likewise by many authors of undoubted Veracity and Honour —

I shall now give a General Line for some of the Particular Symptoms —

The Vomiting is removed, after cleansing the Stomach with Chamomile Tea; by the saline draughts taken during the Effervescence, with Laudanum if these fail.

The headach is commonly carried off by the sweat that succeeds the hot fitt but if this is not the Case, we ought to order the Limbs to be bathed in warm water, & apply Cataplasms to the Feet of some acrid Substances, but if these do not remove it apply a Blister to the Back.

Dr. Lind's Method of giving Opium in the warm fitt will be the best prevention & its certainly a great and usefull Discovery.

A Coma renders bloodletting necessary and if the Patients case will not admitt of opium

opening a vein in the Arm, we ought to apply cupping Glasses, and Blisters have an excellent Remedies and should be laid on as soon as possible.

Antispasmodicks as Musk, Castor, Opium, remove a Hiccup, & if its violent Cuppen on pitt of Stomach should be tried.

Sometimes these Fevers are carried off by a Critical Deposition of matter, in any place which forms an Abscess, this Abscess ought to be promoted by all means, and they often happen in the thigh, where the matter by insinuating itself among the muscles well sometimes get into the Cavely of the Abdomen; to prevent this dry Cupping & Emollient Cataplasms should be applied and the Tumor opined as soon as possible

If there is a Jaund ice accompanying the Ague & it has perfect intermissions the Bark with Rhubarb or Aloes will not fail to cure it.

A Diarrhoea is removed with a gentle purge if the Stomach is disordered; with Rhubarb.

& with Opium, before the the Bark be given these should be premised & the Diarrhoea stopt by them. The Vomites given in these fevers should be wrought off with Carduus Benedictus Infusion rather than warm water, which as was before observed is one of the most relaxing things in Nature, & consequently very improper here.

In Flatulent Cases Aromatics should be joind to the Bark, cordials & Rhubarb, may be used to advantage, & if the Patient is Sick a Vomite may be taken.

The best things for preventing a Relapse are the Continuation of the Use of the Bark, Change of Air, Exercise, especially Riding, Mineral waters with Steel, Elix. Vitriol. &c.

When Agues are Endemic in any Country, there are some Circumstances which if observed may do a great deale, in preventing the Attack of Agues and

1. In all Agueish Seasons we ought to avoid

avoid exposing ourselves suddenly to heat from Cold or from Cold to heat. Because this is an exciting Cause of Fever, we should likewise avoid easterly winds, marshy damps & damp low rooms, damp Linnen and Beds.

2. It in our power to go in such seasons to large towns, because it has been observed that (caeteris paribus) these Fevers are more frequent & more fatal too, in the Country than Town, whether this be owing to the great Fires or to what it's owing I cannot say, but it's a fact. And we should always choose a dry, & elevated situation and to sleep in high Rooms, the windows of which should never look to marshy damp soils & we should burn large Fires of resinous wood especially as Fir Pine &c. Nothing is more apt to have bad consequences on our health than Marshy grounds as we may see exemplified in Campaigns

near marshy places.

3. It would be proper not to go out in the morning fasting; or with an empty Stomach especially for such as are employed in ditching marshy ground: they should before they go to their work take a Dram of Spt.s in which Garlick & Peruvian Bark have been infused, dilutted with double the quantity of warm water.

In this seasons smoaking Tobacco is certainly of considerable use as a preventative; but this is no reason for its being universally used by every body & that indiscriminately with regard to the seasons In their habits 'tis hurtful because they cannot bear such a Discharge of Saliva

4. As a preservative against Agues, a Generous Diet, and drinking a little more wine than ordinary is certainly very good; the frequent use of the Cold Bath & good Exercise; with the use of the

Brush, are very proper as preservatives & it is likewise necessary to keep the feet, Baith & Stomach pretty warm.

5. When a Stranger goes to a Country where there are Endemic he should always keep an open Belly by some of the Stomachic Laxatives as Elix. Sacrum Pro Phoei &c.

6. A Glass of the Tincture of the Bark twice or three a day diluted is a very good Preservative both against Epidemical Intermittents & Remittents & in general is a good Preservative against Epidemical Fevers in general.

I shall now give you a list of the Authors who have wrote best on these Fevers. For the Description of these & instead of every other Discases Sydenham is the most accurate, and true Van Swieten gives the Proximate Cause, but Either Sydenham or his Practice are fitt for your imitation

You may likewise consult Senac de febri-
bus Intermittentibus, which is the best
treatise I know on the Subject: Huxam
Cleghorn, Monro on Camp Diseases, Forti
and Dr. Lind are all worthy to be consulted
on these Fevers.

Class 1.st Order II.d Genus I.st
Inflammatory Fever.

I divide this into three
1 Common Continued Fever with general
Inflammation.
2. contains putrid Malignant fever
which comprehends Jail & Hospital Fevers.
3 Is the slow Nervous Fever.

The Common continued Inflammatory
Fever which was the febris Continua or
Synochus of the Antients, is distinguished
from the febris Continuus, by having no
sensible Remissions, whereas the febris
Continuus had some small Remissions
But [illegible] opinion that there is no [illegible]

Fever whatever, but has some small Remissions & Exacerbations.

The Ephemera is a fever of this kind & from its Name we should think it lasted only one Day, but it generally continues about 3 or 4. It's very mild & mostly proceeds from Error in Diet. The Ephemera Britannica, which raged about 150 years ago is described by Dr. Caius, & was commonly called the Sweating Sickness. Sauvage has distinguished these fevers from their Duration, which is very wrong & uncertain There is no Physician but would know these from one another by their Symptoms at the first, but it's impossible to know how long they will last.

My Definition of this Fever includes my general Definition of Class 1. and is as follows A Quick, full hard pulse, great thirst, little Remissions & the Blood has generally a Buffy Coat.

In its Symptoms it resembles the Hot

hatt fitt of an Ague, it commonly I believe always begins with more or less of a Rigor, at the beginning there is a Pain of head & Back, a Lassitude and feeling as if bruised, there succeeds this a red Face, full Quick pulse, a little hardness may generally be observed in it; Thirst, Nausea, Vertigo, high colord Urine, without any Diement, a Quickness of breathing, & want of sleep & tho' they do rest its not at all refreshing, they loss their appetite, have a general Debility, & an Anxiety about the Procordia, a Costive Belly, Parched tongue at first white & soft then white & dry and at last brown and dry, the Blood in generall has a Buffy Coat. The Symptoms are generally severe from the beginning, but the Nights before the Crises happens, they are remarkably worse, & more violent. In this and all other Fevers there is a great melting down of the fatt about this time, & a want of Sleep to a

which commonly continues 10 or 12 Days after the crisis is over.
When the fever is attended with Topical Inflammation, bleeding & a Blister applied to the place perhaps may remove it but the fever after 2 or 3 Days continuing as a generall Inflammation, causes a topical one, commonly of the Brain.
Such Continued fevers as proceed from Errors of Diet, are generally soon over, & in Children after the 1st. 7 have been well cleansed, they go off of themselves, & have no regular Period.
The heat in these Fevers depends much on the natural Constitution for tho' the Natl. Heat in one patient be always pretty much the same, yet in different Patients it varies very much. The same is true of the Pulse in health 70 beats in a Minute is reckoned a mean yet in some I have seen it only at 50 & others 90. People that have great mobility of the Nervous System, upon little occasion will have it greatly encreased

encreased, some Hysterical Women in slight Ailments of that kind will have it at the rate of 150 in a Minute. It is with this Fever that Hippocrates observations agree principally.

This Fever has been carried off by critical Evacuations, as Hemmorhagie from the Nose; but the most common are Sweat and Diarrhoa. A Spontaneous Vomiting & a large flow of Urine with plentifull Sediment, have been commonly reckoned Criticall; but I am of opinion they are rather to be reckoned Symptoms of Morbally: cine than Critical Evacuations.

These fevers when they run on for a long time, commonly end in Nervous & in warm Climates in putrid Fevers; but I have seen them continue three weeks with out any appearance of changing; & some times when no Crisis has appeared they are at last terminated by the breaking out of Abscesses. A Jaundice appear.

appearing about the Seventh Day, has carried off this Fever and Dr. Stork gives instances when a Copious Expectoration happening on this Day, even when there was no previous Affection of the Breast, has cured the Fever.

It sometimes wears off, by no sensible Evacuation, of its self very gradually & this is called Resolution. An uncommon Sleeping attended with evident remission & abatement of the Symptoms, has carried it off, after it has continued a long time

It has been observed that these Fevers have terminated on one Day rather than on another, and most commonly in a favourable manner, hence these Days have been named Critical, & this is certainly a fact tho disputed by many, and alledged that Hippocrates had a favour for Septenary numbers. The more remarkable of these Critical days are the 7th 9th 11th 14th 17th 20. & 21st, but in warm Countries & when the fever runs high the

the 4th Day is often critical:
There appears to be in Nature a real foundation for these, & I am of opinion they are as well founded as any truths in Medicine, tho' when we exhibit Antimon.l Medicines & such like we disturb the regular Progress of the Periods of the Fever & therefore they cannot be observed; but when the Disease is left to Nature and allowed to take it's own Course, they may be observed in general to hold, tho' with a great many Exceptions; however in these Climates they are not near so regular as when Hippocrates practised. Cleghorn who was much in the same latitude observes an Exact Conformity with Hippocrates in these Critical Days. But I shall afterwards explain the reason why they don't hold here.
Dr. Martin in his Practise on Crises by an Induction from Facts proves this foundation for these Days.

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The general Antecedent or Predisponent Causes to these fevers are, Youth, Sanguine Temperament, a state of high Health, full habit; a set of Dense Fibres rich dense Blood, the Spring Season a Cold & Temperate Climate. They do happen in all Seasons & periods of the Year but the Spring & Autumn are most common in the Autumn Fevers of the Putrid kind are more general.

The occasional Exciting Cause of these Fevers is any sudden exposure of the Body to cold, when it was warm, a suppression of usual Evacuations especially of the Sanguine kind; the Repulsion of the Milk in lying in women, any violent Exercise, being over heated, hard drinking, a want of Exercise when at the same time we are very full a want of Sleep, and a particular Epidemic Season, which may be without any sensible or apparent change in the Air, Whatever will occasion great irritation, as Fracture

Fractures, and wounds when they suppurate are always attended with a Fever in women before the coming on of the Menses there is commonly a fever for a few hours & in some it will continue a Day or two. As intermittents were observed to be often very beneficial to the Constitution & employed by Nature for removing a worse Malady, so likewise there are sometimes known to remove other very grievous Diseases. An Apoplexy has often been carried off by a fever supervening & many other Nervous Disorders, as Convulsions, Paralysis, and many other Diseases as Gout, Pains of Precordia when not attended wth Inflammation, Obstructions in Abdomen all Kinds have all been removed & radically cured by a fever coming on. And in General a Fever of this Kind when terminated by a favourable Crisis, removes Eruptions of the Skin, Disorders of the Stomach, and leaves the Patient, more vigorous, & spirited, with

with, better appetite. As therefore this Fever so often & more than any other almost, of so great benefit to the Constitution, Physicians should give particular attention to the Cause of it, whether an Effort of Nature; or the Consequence of an External Cause; in the first Case to assist & cooperate with Nature & not stop her, & in the last to stop the progress of the Fever as soon as it possibly can.

The Prognosis. In this Fever it's a favourable Symptom when Aphthae appear for in generall they are the Consequence of a Critical Deposition in the mouth & commonly run all along the Intestinal Canal Instances of which I have seen; that they are critical appears by the fever wearing off as they advance; but sometimes after the Fever has been entirely gone the Patients Mouth & throat have been so swelled that they could swallow nothing, & have actually died of hunger.

In such cases I have experienced the good effects of a Vomite in my own practice, it brought up a vast quantity of Defluxion and apthous Crust, & if it purged the patient he passed, a number of Pieces of the same kind which shows that the Intestines have been in the same condition with the mouth & throat.

It's generally reckoned a favourable Symptom when the tongue remains moist & soft, but for all the stress Physicians lay on this Symptom it often rather indicates the State of the Stomach, than Fever.

A Pain in the Occiput & Crown of the head are worse than a pain in the forehead. in the forehead it's generally a mild Fever & very frequently indicates a foul Stomach

There's little unfavourable from a Delirium if the Patient is young, has lived high, for such in this Fever always have a kind

But if the Eyes at the same time are inflam'd it may be reckoned Dangerous. When the Urine is pale with a cloud in it, it is reckoned a favourable Symptom & indicates the fever near an end.

In Diseases there are some Symptoms which have been observed to precede critical Evacuations, & by being attended to we may be able to presage these.

Before a hemorrhagie from the Nose the following are taken Notice of viz. an Itching and redness about the Nose, severe headach redness of the face, Inflation of the Belly, the Quantity of Urine less, Tinnitus Aurium obtuse pain of the Neck, and Involuntary Tears; if these are allogether present at the same time we may be certain of it but when one only or a few there is no certainty a dropping from it on the 6th day is said to presage an Hemorhagie on the 7th

It's alledged that by observations on the Pulse we may arrive at great perfection

tion in presaging these Evacuations
Dr. Solano by Dr. Nihill gives observations
on this & in France it is cultivated much
but whether the Course of Fevers are is
more irregular here or what is the Cause
neither I nor any here as far as I know, have
been able in many Cases to perceive any
such thing. And Dr. Nihill since he came
to Ireland has not been able to discover
three varieties of the Pulse which he found
in Spain, but I am apt to believe his
Imagination has often assisted him
before, tho' at same time I really believe
there is a foundation for this.

A Hemorhage is presaged by a rebound
ing pulse or when there is a doubling of the
strokes after every second Beat.
During the Continuance & after before the
Eruption of a Critical Sweat there is a
particular fulness & softness of the Pulse
& besides the pulsus vacuens there is an

another called pulsus residuus when the strokes rise above one another in point of strength: as the first shall be weak 2d. a little stronger & 3 still stronger the next again weak.

A soft intermitting pulse generally forebodes a Discharge of Urine & a Diarrhoea and a hard such pulse is hard & intermitting. it presages a Critical vomiting

I shall now give the unfavourable symptoms that appear in continued Inf.d Fevers which as they are common also in all the other kinds I shall to prevent Repetitions. give those that attend Fevers in general.

It is always reckoned an unfavourable symptom, when the thirst goes off and the tongue remains dry. Inflammatory fevers are always attended w.i more or less thirst, & when this is not the case it is a symptom of the very worst kind & will always prove fatal, & this very so-

soon, commonly in 30 hours.

It's unfavourable when the Urine from the high Colour it had suddenly turns white & clear & perfectly limpid & is for common a fourrunner of very violent symptoms as Delirium, Coma, Convulsions. But in Hysterical women & men who have great irritability of nervous system, no such conclusions should be made from this Appearance.

Sometimes we observe a very great change in the patients Voice, not a hoarseness, but a loss of it's usual Tone; called Vox clangosa so that people would not think it the same person did they not see him, this too is an unfavourable Symptom.

Delirium is surely unfavourable, but if it's not a constant one attended wth difficulty of Breathing, or redness of the Eyes it's not so very dangerous, but there are various Degrees of it, as to it's Violence, and t. they commonly sp[illegible]

speak thro' their sleep but when waken
are sensible enough. this is the mildest
kind of it

If you do not speak to them they speak
incoherent, but if you speak to or ask them
any questions they answer very sensibly
there are many more degrees of it, but
I shall only mention the last or higest
which is when the patient knows no
body neither has a Connection in his Ideas
& is utterly insensensible of every thing
you say, but when there is any Connection
of Ideas the case is not so ill.

But a still more unfavourable symp-
tom than Delirium is Coma, I mean that
which proceeds from a great degree of
Appreption on the Sensorium & not that
mentioned as a termination of Fevers
after they had continued long, obst. ad lep
ing which continued 2 or three Days
but w' remission of the symptoms
Convulsions, general Convulsions I mean

mean of the whole Body are fatall; In this
Country few of these happen unless at the
approach of Death. Indeed some particular
patients who have great Irritability of
Nervous System, sometimes have these
but they are not to be reckoned so unfavourable
as the Tendinum is partial convulsions
but ~~are~~ not always fatal

Coldness of the Extremities are among the
last Symptoms that attend Fevers and are
generally fatal Symptoms. this proceeds
from two Causes from a Spasmodic
Contraction, or is a nervous complaint wch
is not so dangerous as the 2d Species wch
proceeds from absolute Debility of the Vessels
to propel the Blood to those parts & this
last is always a fatal Symptom -

Partial Sweatings about the Head & breast
are unfavourable, and Grasping of the Bed
Cloths, picking up straws, & lying on the back
with the legs stretched out at full length a

bad Symptoms, here we may observe that the Patients who are very weak always lye on their Backs with their limbs stretch'd out, because the blood circulates easiest in this posture.

A Dyspnoea is a bad Symptom in every Fever and in Inflammatory fevers if it continues long indicates that the Lungs are inflamed. Before the Patient dies a few hours, & sometimes but a few Minutes there is always a Dyspnoea and a collection of ~~Matter or~~ Phlegm upon the Lungs

Hiccup is in general an unfavourable Symptom but I have seen a hiccup continue for 3 days in the beginning of a Fever without proving fatal

Involuntary passing of Urine & Feces are generally very bad Symptoms but not absolutely fatal

Red Eyes, with an Inflamed & pale Appearance and Sordes at the Corners, commonly attend Delirium of a bad Kind and indicates an Inflammation of Brain &c

An Eruption called Purpura alba, truely Miliary is an unfavourable Symptom & generally the Consequence of too hott Regimen, as I have seen for upon taking off some of the bed Cloths & opening the Curtains the Patient has been greatly relieved if Physicians consider this as an Effort of Nature or a Critical Eruption they will be ready to heap on Cloths, which is in effect killing the Patient.

Diarrhoea when the Stools are very foul & blackish, is a very unfavourable Symptom & is called Symptomatick to distinguish it from the Diarrhoea formerly mentioned as Critical or an Effort of Nature.

Petechiæ are bad Symptoms & in warm Climates continued Inflammatory Fevers if they last very long frequently degenerate into putrid Fevers, attended with Petechiæ Bloody Stools and Urine, and blood issuing from the Gums & all the appearances of the bloods being greatly dissolved. But when these sometimes appear when there is no

no appearance of Putrefaction & hence they are always the Effect of too hott a Regimen, Sawage is certainly wrong when he says they are without exception the Effect of a hott Regimen, for in the Jail & Hospital Fever they are evidently not owing to this.

A weak quick irregular Pulse is a certain indication of approaching Death but in some cases we find the heat greater than the pulse would indicate to us; to judge of the heat by the thermometer, it must be applied within the bed Cloths, & kept at the Body for about a Quarter of an hour at least.

Its an unfavourable appearance when the Patient lies quiet in bed with his Eyes open, without sleeping, or speaking any thing, & when you attempt to feel his Arm retracts it, with a trembling in his hands

After a fever has remitted and gone a little off if the pulse become quick the face flushed & the Tunica Albuginea of the Eye of a shining Colour

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there is a hectick fever come on.

Apthae were formerly mentioned as Critical in this fever, but sometimes they are only Symptomatick, and if the Tongue becomes suddenly clean, with a great heat of the Gums we may expect them.

In all fevers there is a greater than ordinary sensibility of the Eyes, but if this is either too great or too little tis a bad Symptom, If the insensibility is so great that the Pupil when exposed to a strong light does not contract, tis a fatal Symptom. Deafness is of various imports in Fevers if there is inflammation of the Eyes & great pain & disorder in the head it's a bad Symptom, but in general when it comes on alone & about the end of the Fever is one of the most universally good Symptoms we know

A Delirium coming on suddenly is always dangerous, but when it's progress is gradual there is not so much danger. In Children a Delirium soon follows the attack of the fever which generally proceeds in them from fear

foul Stomach, but is commonly removed by a Vomit & Laxative to cleanse P. V.

When the Breathing becomes slow, with a kind of stop after every Expiration and if at the same time the pulse is slow soft & full its a very bad Case & generally precedes a Coma, but is very apt to impose upon a Physician & make him imagine the fever quite gone

It's a very unfavourable Symptom when in the last motion the Patient faints, and is a constant attendant on putrid fevers, but in Inflammatory fevers is a Sign they are degenerating into a putrid Fever.

Small bleedings at Nose are unfavourable when there is no abatement of the Symptoms.

If after a Patient begins to recover his Urine lets fall no Sediment its a Sign he will relapse, tho' sometimes indeed this will not happen, yet I never think my Patient out of danger of a relapse till such time as this Sediment appears in the Urine.

Urine. I shall now proceed to the proximate cause of Inflammatory Fevers, but have little to add to what I gave of Fevers in general and no person so far as I know has given a proximate cause of every different Fever or a more satisfactory account of it.

All I shall add here is that many symptoms proceed from morbid affections of Brain when little thought of and no appearance of it being greatly affected, as has been made evident by morbid Dissections, where the Brain has been found inflamed, & suppurated & the Ventricles distended wth fluids thus Nausea & vomiting may proceed from many different causes; they may proceed from foul stomach, at other times from Nervous affections of the stomach, and at other times from a morbid topical affection of the Brain for we see people who have got violent stroke on the head very often fall a vomiting & tho we could not suppose it was the foulness of the stomach that occasioned it.

I formerly took notice of the Theory of Putrefact.

Putrefaction, Morbid Matter, &c

The febrile heat depends on the same cause as the Natural, only acting in a greater degree, not on mechanical Attrition evidently for we find that when the Pulse is weakest & consequently the Attrition less the heat is greatest as at the End of some Fevers, it should seem rather to depend on Chimical Mixture

An Addition to the proximate Causes of Fever already given is the appearance of the Blood in Inflammatory Fevers.

Dr Pringle has given us several observations with respect to the Buffy coat that appears on it & some of its Qualities as that it's volatile &c but does not mention whether taken from a person in a fever or not

There has been great stress laid on this Buffy Coat of the Blood, tho' little certain can be had from it because it is sometimes wanting entirely in these fevers & sometimes persons in health have it & women with Child always

always. It likewise depends sometimes on the Bloods flowing in a full stream from the Vein out of a large orrifice, and we find the 1st & 2d Cup has it when there will none appear on the last, this is owing to the Bloods flowing in a large stream at first, & then trickling down the Arm De Haine mentions many Circumstances relative to this Coat which I have never been able to observe, he says that as the same bleeding the Buffy Coat shall be most in the 1 & 3 Cups & least in the 2 & 4th and that at same bleeding he has seen the blood with the Buffy Coat in the one Cup & in the next dissolved alternately, this I cannot believe but think his Imagination has imposed on him. There are three particular Circumstances that vary the appearance of the Blood 1. Heat, 2 Evaporation & lastly Motion.

In a heat equal to 94° on Farenheits Thermometer there was no separation into Cra:

Crassamentum & serum and at the freezing point the same happened.
The Exhalation is in proportion to the heat hence it's greater in different seasons and in large Vessels than in small, and in bleeding the Exhalation is greater if it trickled down the Arm than if it flows in a full stream A ligature on the Arm when strait prevents its separation. Vide Dr. Lange. his Observations on this.
The Blood being suddenly exposed to cold in shallow Vessels or deep ones with small mouth is very apt to deceive us with its Appearance, before we are aware of this hence it does not separate into Crassamentum & serum..
Other Circumstances relative to the Buffy Coat of the Blood should be attended to as that it appears in people in the highest health especially those who are used to bleed in the Spring & in winter it's commonly to be found & if there has been a Chain of Ligature, Women with Child always have it & we likewise find it in slow Rheumatick Cons

Complaints without fever, from this as was before observed we may see that is no great Stress to be laid on it as some pretend, yet cæteris paribus it is generally an attendant on Inflammatory Fevers.

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I come now to treat of the Cure of the Continued Inflammatory Fever, which as in the Cure of Intermittents, cannot be had or indicated by the knowledge of the full & immediate Proximate Cause of Fever hence the necessity of allowing particular Symptoms as Prox. Cause: but as in Intermittents so here likewise Nature makes Fever an instrument for the Removal of other Diseases & to invigorate the Constitution, we should therefore in the Cure be assiduous in observing whether the fever is an effort of this kind or one arising from any other Cause. There are some Epidemical fevers of this Genus in which the Symptoms are not very violent, and commonly [illegible]

carried off by Nature in a week or so with no assistance from Medicine, & Physicians should not meddle with such only palliate the most violent Symptoms - Sometimes a Fever will arise from taking in too much food at once, but is soon carried off by Evacuations. I have reduced the general Indications under the following heads

1. We always should in Continued Inflammatory Fevers endeavour to take off Plethora if there is one, by Evacuations of Blood by Vomits & Cathartics -

2. To moderate the Febrile heat, by a Cool Regimen, as admitting fresh Air, by Evacuations as blooding -

3. In fevers there is an unequal Determination of the Blood & Nervous power to different parts of the Body, hence we should take off Spasm, & promote Secretion by Bleeding & other Evacuations by Neutral Salts & warm Bath

4. When there are local Congestions in any particular Place we are to remove these by topical Evacuations & Applications, to the

the first belongs Blooding & Blistering and to the other Fomentations

5. We ought to support the Nobility by Cordials & Blisters.

6. To endeavour to mitigate the violence of the Symptoms, as want of Sleep, Delirium and such like.

You will in general find in Authors the Indications of Cure deduced from the supposed knowledge of the proximate Cause of Fever. And Tenor & Acrimony are the chief that have been assigned. The Medicines adapted to the former Theory were generally of no bad Consequence in Fevers & some were very proper but the Medicines adapted to removing Acrimony were evidently pernicious & of the very worst Consequence, for by supposing an Acid Acrimony the Cause of Fever they were induced to give great Quantities of Sea Salt Powders & Volatile Alkaline Salts.

Now I proceed to give my particular observations on the Remedies adapted to the above Indications of Cure, and first of Blooding

There are two Circumstances that render Blooding particularly necessary in these Fevers 1 Appearance of fulness 2 The Severity of the Febrile Symptoms.

The Effects of Blooding are that it makes the Pulse softer and slower, when before it was full tense & hard. But it often happens in Inflammatory fevers that the Pulse is oppressed and small, this is very apt to impose on a young Physician and make him afraid of Blooding but no case requires it more; & if he is doubtfull there can be no matter of taking 5 or 6 ounces of Blood in the beginning of the fever & if upon this the Pulse rise he may proceed & if necessary repeat it, for the generall Effect of Blooding is to make the Pulse softer and a little slower — Another good Effect of Blooding is to take off the heat & lessen the Anxiety about the Precordia; it likewise takes away Spasmodic Structure & promotes the different Secretions, which in fevers are generally lessened especially that by the Skin; which blooding often promotes & if universally dispersed over

over the Body often carries off the fever entirely especially if it proceeds from any Error in the Nonnaturals.

There is another Effect of Bloodeng to remove Obstructions & morbid Congestions in particular places, to cause a more equal Distribution of the Blood and to make a Revulsion from any place where it is determined more than ordinary to ~~one place~~. hence we see Hemorrhagies from the Nose Lungs &c stopt by blooding in the Arm.

Another Effect still is that the Blood is rendered thinner for people who have been accustomed to blood often have less proportion of Crassamentum to the Serum than they had before this Custom, and in Cases not attended with Fever as well as where there is, the Crassamentum is less & in Fevers ~~is~~ that is of it is extremely viscid & Tenacious.

I shall now mention the particular Circumstances as to its use & propriety.

1 Blooding is much better born by persons of a thin habit in general, than fat & full.

2 Blooding is ~~by~~ far better born by young

young, than either Infants or old people.
The Old indeed in Inflammatory Diseases do generally bear bloodeing well enough provided you take not much away at once which if it be done generally weakens them very much — But Children of 5 & 6 years of Age bear this Evacuation very ill, & Serous ones much better than Red ones — But in some Cases it may be necessary where the Fever runs high, but even here it should be gone about cautiously — Leeches are commonly used to such but ought to be stopt & not as is the common Custom allowed to blow 10 or 12 hours — I my self have seen Instances when this has proved absolutely the Cause of their Death in the ensuing Disease. It indeed does not weaken so much, being taken from the Surface, if they are stopt in time — Bleeding is in generall cæteris paribus better born by men than women from whom we ought not to take it in large Quantities — People of a lenze fibres & a Lazy Nervous System, do in genes all bear it better than those lax habit & Nervous.

Nervous System, but many women of a relaxed habit become very plethoric & we are obliged to take blood from them which they will bear very well provided you do not take too much ~~from them~~ at once. They indeed labour under a venous Plethora as we may see by the turgid & full appearance of their veins. In general it is better born by people that live in a Cold temperate Climate than those that live in warm Climates, & is pernicious in putrid fevers, where a very little quantity sinks the Pulse very much - hence as Inflammatory Fevers in these hot Climes are very apt to degenerate into putrid fevers bloodeing should be undertaken cautiously. In Winter & Spring Bloodeing is better born than in Summer or Autumn. And those who have been accustomed to the Evacuation, can bear it better than those who have not & in slight febrile Disorders require large Bleeding when persons who have not been used to it, could lose none at all, & would not require it. The time

time most proper for bleeding a patient in a fever without doubt is in the beginning but if necessity require it, any time of the Disorder will do. It has been laid down as a Rule never to bleed a woman who has her Menses on her or her Lochia, but if Symptoms are urgent, no regard ought to be had to these Circumstances, & bleeding is not observed to be apt to stop their Evacuations, however as the women themselves are so prepossessed against this to prevent Reflections Physicians should make it a point of prudence not to be very rash in case of failure.

When speaking of the full proximate Cause of Fever I mentioned that Sizzy Blood was not the only full Proximate Cause but when it is very much so the Patient will bear it better & if his pulse rise or is hard it may be safely repeated. It has been a Rule to repeat the Bleeding if a little after the Vein is opened it run faster & more briskly but this can be no general Rule however when it runs faster & more sparkling it may be done

done, pretty safely.

We find Bloading ad animi deliquium prescribed by the Authors in urgent cases but this is very fallacious, because we frequently find Patients faint before they have lost 6 Ounces of Blood & others that will bear the loss of 2 or 3 lb. before they faint which Quantity taken at once from the most robust & vigorous would certainly induce great debility & particularly affect the Nervous System. Fainting may be in a great measure prevented by blooding the Patient in a recumbent posture & stop-ping the Orifice frequently. Sometimes when the Patient has lost so much blood as not to allow of opening a Vein, cupping and scari-fying may be substituted, & they will bear the loss of 5 or 6 ounces taken this way better than 1 ounce from a vein, but the slower the Ev-acuation the less ready is the Patient to faint However unless when the Patient is very low

the Quicker & Evacuation larger the orifice so much the better & its better to take a Middling Quantity at once & repeat the operation if the pulse rise, than a great Quantity together, in general 10 or 12 ounces may be reckoned a medium, but a sudden loss of any Quantity of Blood affects the Constitution & Nervous System

The Place from whence the Blood should be extracted has been a subject of dispute before the Discovery of the Circulation, and it was the received opinion then that some particular places of the Body were preferable to others for this purpose, but since that Discovery the next Theory was that it made no manner of odds from what place it was taken & the same was their opinion with respect to the Application of Blisters; however this is now found to be a false Notion, for in some particular Diseases it makes a very material Diff

difference as in particular Congestions of any place Cupping & scarifying immediately on the place affected is of the greatest Consequence. By the Laws of Hydraulicks it has been attempted to determine the place proper for making this Evacuation, but this will never be able to do it & for all the time it has been practised, it still remains to be decided by Experience & Observation. However in generall the nearer the place affected the Evacuation is made the better but it has been said that the first blood should be drawn as far from it as possible, and it is said in affections of the head bloodeing in the Ankle or foot is more effectual than in the Arm, but this should be no general Rule, because particular Circumstances may make bloodeing in the Arm preferable as small Veins in the foot which would not make a sufficient revulsion — In treating of particular In-

Inflammatory Diseases I shall mention the particular place of the Body from whence the Blood should be drawn.

In France its customary to take away a great Quantity of Blood in every Febrile Disorder & repeat it often, but there the inhabitants are so accustomed with it that they bear it very well; the same quantity taken from a stranger would soon despatch him or leave him so weak as never to recover the Effects of it in his whole life again, but the French Physicians have now begun to be a little more saving of human Blood than formerly.

The next Remedy in the Cure of Fevers was Vomites and the Circumstances indicating these as necessary were Nausea, Anxiety, constant restlessness, a foul Tongue and a Disposition to Diarrhoea especially in the beginning, which if not prevented by a Vomit proved not a Critical but Colliquative Diarrhoea

Diarrhoea or Symptomatic. In all conti
nued Inflammatory Fevers before the
Exhibition of a Vomite the Patient should
be blooded if there is the least appearance
of Plethora or headach. but in cases when
there is no fever & the head much affected
a vomite may be taken with no risk of in
creasing the headach, but if not proceed from
Sanguine Congestion bloodying must be
premised. Dr. Sydenham always after
the Operation of a Vomit or Cathartick gave
an Anodyne Draught, to quiet as he called
it the Commotion, however in cases of
the heads being much affected I would not
advise it in Inflammatory Fevers but
if the head easie it assists the Vomite
greatly in making the Patient perspire &
sweat all over — The Effect of a Vomite is
to cleanse the Stomach, to take off Spasm
& promote sweat & cure the headach. Vomites
are particularly proper in Childrens fevers

Fevers, because they most commonly arise from Disorders of the P.V. & Nature seems to point this to us because Children vomite much easier than Adults & when they take in too much Milk they always throw up what is superfluous, and in general the younger Children are the better & easier do they vomite.

Adults bear vomiting some, better than others, but do not vomite with such ease as Infants; in some grown persons the operation of the vomite is so severe and violent as often to endanger a Rupture of the Vessels & in general all long thin persons, and those who have a long Neck are most distressed with this operation of Vomiting so that it's proper we should be acquainted with this Circumstance before we prescribe a Vomite for any body.

I formerly took notice that Vomites promoted sweat; by which, being given in the beginning of Fevers that come by infection it often has the good effect to prevent the further Advance of the fever & cures it entirely

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entirely – It was formerly a Rule never to give a Vomite but in the beginning of fevers; this is far from being well founded and if the symptoms indicating its propriety are present there needs be no doubt of its good Effects, and there will be no Danger in its Exhibition. The Vomits mostly used now are the Ipecacuanha and Emetic Tartar the first of which is indeed more certain as to its effect of Vomiting, but the Emetic tartar besides this has the in general, likewise produces a stool or so & unloads the whole Intestinal Canal. Ipecacuanha in the Quantity of viij or x grains will have as much the power of Vomiting as in the old Dose of ℥ss, but sometimes to quicken its Operation the more may be given. Some Cathartics will in a less Dose than is commonly given operate sufficiently well.

Of the Use of Cathartics in Fevers

I mentioned before that in the beginning of this Fever the P.V. should be cleansed, and if the Emetic has not had the Effect of pro-

producing a Stool, a gentle Cathartick should be given to evacuate the Contents of the Guts especially when there are Symptoms that indicate any putrid Colluvies in this Canal, as Anxiety of precordia, Swelling of the Stomach & bad taste of the mouth, accompanied with a Redundency of Bile; this is the practice of the followers of Hippocrates, but they do not give either the Vomite or Cathartick with an Intention of removing the Fever by them at once but to evacuate these indigested & Putrid Contents of the Guts — Acrid Stimulating and drastick Cathartics should not be allowed in Continued Inflammatory Fevers After every Fever it was a rule to give Physick but unless there has been any putrid Evacuations from the Belly, no more is necessary than to keep it gently open —

In all Inflammatory Fevers it has now become a practice to give an emollient Glyster every Day, not merely to evacuate, but also to relax the Guts & be a kind of Solvent to the

the neighbouring Viscera, to act as a warm bath & consequently as an antispasmodic & perhaps one of the best glysters is warm water alone — In Cases when the Patient does not drink enough one of this kind will if thrown up every 4 or 5 hours generally be retained & supply the place of drink in a great measure at least the Dangers arising from not drinking is by this means greatly diminished &

I have seen Emollient Glysters of water warm, or with oil or Mucilage cure a Tenesmus & Diarrhoa by carrying off the acrid stimulating colluvies that occasioned them

Of the Regimen in Cont.d Inflam.y Fevers

Patients in Fevers have in general a loss of Appetite, and it serves no manner of purpose to force them to eat, but a bad one, because after they have eaten they are never easy again till it is either thrown up or descend into the Intestinal Canal; and what they do take should be light of easy Digestion, Generous, and Antiseptic, the best nourishment is Broth

Pomonada, roasted Apples and for drink whey Lemonade, toast and water Barley water & small beer, either alone or with Spt. Nitri.

There has been a general prejudice against Malt liquors in fevers, which if strong is indeed bad but small beer may be allowed them especially if they have been accustomed to it before; It was Sydenham's favorite.

Tar water was one in great Vogue and drunk every Day in considerable quantity in fevers, and a very Nauseous drink it certainly was, & contained nothing but a Vegetable Acid combined with an Empyreumatic Oil; but a Vegetable Acid may be given in a much more agreeable form, and as patients in these fevers ought to drink much, we should to encourage them make it as palatable as possible, and when they weary with one have variety to present. Weak Lemonade is indeed the most agreeable & best I know especially if a little Rhenish wine is added.

It was formerly a practice to give Diuretic Decoctions, as Demulcents, attenuants

Menstruants; and under other names, these besides their disagreeableness were of no Advantage more than cold water.

It was and to this Day is a practice in Fevers among many Physicians, to order all the drink to be given warm, but this is certainly contrary to the Indications of Nature. Indeed when there is topicall Inflammation there may be danger in giving the drink very cold, but in fevers where this is not present the drink should be always cold, & in some cases we find it necessary to give it extreme cold, which in warm climates is often practised with the best Success

Some Authors of the best character have laid it down as a principle that Cold water will not mix with the Blood unless some thing spirituous is added as Syrup fruit &c but this is a mere piece of Theory; & they support it upon this that the Urine grows pale the more water they drink & that it passes off by the Kidneys just as they took it in, but had they examined the Urine after

asked drinking largely of any thing else they would have found it grow pale in proportion to the Quantity drunk. Syrups are a bad addition to water because they both increase thirst and at the same time the Patient loathes every thing that's sweet. The Good Effects of Cold drink in fevers are principally these 1 It acts as a high Cordial in removing Nausea & raising the Spirits. 2 It acts as a powerfull Diaphoretic & even Sudorifick. 3. It acts directly on the febrile heat in extinguishing it, & lowering the Pulse so that Cold Drink alone abates all the Essential Symptoms. But we find it sometimes necessary to regulate the Quantity, because when taken into the stomach at one draught sudd only it creats Nausea & Diarhoea; tho when you want it to act as a Sudorifick, it is necessary to give it in considerable Quantity. — Hippocrates his Practice was to give the water colder in proportion as the fever grew higher, & Galen improving upon this never gave it but upon the Critical Days.

Days. Cold drink or water is certainly some effectual Sudorifick than warm and when people in fevers are warm may be given to produce a sweat & even in the time of sweat.

As to the Nourishment in fevers of 10 or 12 Days continuance only, tho' the Patient take almost none at all, little harm will be done; but in long Fevers some must be given to support the Nobile, and in people who have been accustomed to live high, this Antiphlogistick Regimen will not be proper In great drinkers especially the cold drinks will not do they must be allowed Wine or even Spirits if they have been formerly accustomed to them.

Fruit is in generall exceeding proper in these Fevers, it has a Tendency to keep the belly open & to quench the thirst and to correct the Bile, Nature seems to point out this use in Fevers, by the vast variety & profusion of them in the warm Climates, & perhaps the great liking the Sick [illegible] ifest for them.

them. — Cool Air is one of the most necess.y & best things, and the greatest Improvement I think in Medicine. Before Sydenhams time it was thought that something hurtfull was to be sent off by the Skin, and that this might be the sooner & more effectually done they gave Sudorifics & Alexiterial Boluses & Mixtures & loaded the Patient with Bed Cloths; but Sydenhams Judgement informed him that this was wrong & instead of this he introduced the Cool Regimen which was a great Merit in him & an Improvement in Medicine of vast Advantage we now are persuaded of the good Effect of Cool Air in the small Pox, & I hope will soon be vain most fevers. I do not mean to drain the patient to lye in the open Air, no, but only to be kept in a fresh cool Air, & not in a stove, some think provided the Air is not putrid it will do no harm, but I apprehend that fresh Cool Air is otherwise

Under the head of Regimen: light has been by some kept entirely from the Patient, but provided he can bear it easily, & is free from Delirium; there can be no ill in letting him lye in the same degree of it as when in health. But it is very necessary to keep Patients in a fever quiet, especially if they have any Appearance of Delirium; and that absurd & hurtful way their Friends have of visiting them is always a great means to encrease the Delirium because every object makes a greater impression on them & disorders the Connection of their thoughts.

In warm Climates it is customary to sprinkle the Room floor where the Sick lye with Vinegar and water and to strew branches of Trees with the Dew yet upon them which is of great service in Cooling & freshening the Air.

Another bad Practice was keeping the

the Patient constantly in Bed, but they may be easily taken up as often and long as they can bear it, & it lessens the fever & heat & likewise allows them more fresh air — People are very apprehensive of getting Cold by throwing out their Legs and Arms, but this is a sign they are too warm, more cloths should not be kept on the Bed than when they were well & seldom so many we see people when they get drunk & are put to bed always throw out their legs & arms but with no bad consequence to their health so that in fevers unless the rest of the Body is very warm, there will be little danger in this Dr. Sydenham recommends the practice of taking the Patient frequently out of bed & only mentions one bad effect arising from it which as I find no where else mentioned I am of opinion was merely accidental, it was that this practice produced some slight Rheumatic pains and a Jaundice, but both went off upon the Patients being put to bed again.

In these Fevers Epispadics for the first 4 day

Days allowed the Patient neither meat nor drink, not even to wash his mouth and if they were likely to fall asleep some body that waited on them was to prevent them & he exposed them to the greatest Glare of Light - than which Practice of his nothing shews more evidently how far human reason may be perverted by Theory.

Acids are very proper, in Continued Inflammatory Fevers, their Effects are to allay thirst to promote Secretion as by Urine & Diaphoresis but their Operation does not depend on any alteration induced by them, on the Texture of the Blood, they are given in too little Quantity for this; but it may arise from the Stimulus wherewith they affect these Organs & the degree of heat of the body makes them act as Diuretick or Diaphoretick.

You may perceive I make a distinction betwixt Acids & Ascescents, Acids check Fermentation, but Ascescents encrease it Acids likewise remove Nausea in Fevers.

Fever, and Vegetable Acids are most agreeable.

Lect. Sect. 19. 1708. Of the Use of Diaphoretics in Cont. In. Fever.

It was a Practice formerly to give these Medicines very liberally & frequently in all Fevers, & still continues to be the Practice in many places to this Day, but in England is wearing out & in Scotland is quite laid aside. Many Medicines have been given for this End & the most proper are the Neutral Salts. Boerhaave recommended Nitre as the best, but there was an obvious Objection to it's use; and that is, it raises a Nausea more than any one of this tribe. Where the Muriatic Salt prevails it always produces Thirst, & therefore where the Vegetable Acid is, the Salts are best. Saline Draught are now most in use, of Salt of Wormwood & Juice of Lemons after the Effervescence but more Acid should be given than is sufficient to make it a Neutral Salt.

Volatile Alkalies act as Diaphoretics, in

in consequence of altering the texture of the Blood, & they prove this by mixing them with blood extracted from the Body, but then the proportion of the Alkaline mixed with it is by far greater than we can suppose to enter the Blood, I rather think that the secretory organs are affected by the stimulus these medicines have or that the sweat is owing to the particular way in which they affect the Stomach which is of so very nervous & sensible a nature; but in so small Quantities as these are given nothing can alter the Texture of the Blood. It is observed that these Medicines increase heat much, & of consequence fever & hence lessen all the secretions, so that these Forced Sweats must certainly be of ill Consequence. Dr. Freind says fevers are never carried off by sweats of any kind, but in this he is wrong, for we often find Natural Sweats prove critical

Testacia have been given with a view to promote Diaphoresis, but their Operation entirely depends on the Quantity of Acid they meet with in the Stomach, where there is a natural Acid; if there happens to be any quantity of it they then act as purgatives, but are very Disagreeable to the Patient; and in warm climates when such fevers are apt to degenerate into putrid ones, even before this happen the Testacea will tend to accelerate it, being of a Septic Nature I do not mean that the Testacia will bring on a putrid Fever or that they will into the Blood I believe they never do, but they may by this Septic Quality affect the Stomach & Contents, with this Disposition.

There is a hott medicine of this kind, which to this day is much prescribed, & in repute but I never saw any sensible good effect from it, & even Physicians who do prescribe it most frequently own the same, & I am very certain do exceeding Nauseous, wherefore then should we give such Medicines as

as can have no good Effect, but on the Contrary disgust the Patient & create a Nausea
The Pearl Julep is a medicine that is very frequently prescribed & is the most insignificant of the whole tribe, but can do no harm.
When Absorbents are given in any considerable Quantity, & meet with no Acid in the Stomach, they concrete with the Chime & cause Sickness & great Nausea.
Absorbents of Animal Substances are worst

Of the Use of Foment. & warm Bath.

The Effects of Fomentation & warm Bathing are to take off & prevent Spasm, to promote an equable Distribution to the Extremities of the Blood, & relieve the head; whenever there is an increased determination of the Blood to the head, which we know by redness of the face, Pulsation & throbing of Carotid Arteries, occasioning Violent Headach, Dilirium &c this removes the headach, takes off Dilirium, and disposes to sleep. And in cases of Delirium when the Patient will not drink, the Quantity

Quantity of Liquid absorbed by the Skin is of very great service in preventing the bad Effects that might ensue from not drinking
But independent of all these Advantages warm bathing has a certain agreeable Effect on the Nerves which we cannot account for; if we go into a warm bath after being fatigued we shall in a few minutes find as much relief & be as much refreshed as if we had slept 6 or 8 hours, and to this agreeable effect on the Nervous System is owing the refreshing Quality of 3 or 4 Cups of Tea we cannot think it's owing to any Vertue in the Tea, but that it acts as a Warm bath to the Internall parts.

There are circumstances indicating the propriety of Pediluvia in Fevers, as not sleeping, violent headach & Delirium from unequal Determination of Blood to the head; a dry parched Skin, and coldness of Extremities in all these Cases it's of great service

Service and very necessary. And in Cases when there is any Degree of Apprehension on the Nervous System producing Subsultus Tendinum & Convulsions to the Degree of making the limbs jump from the bed Warm bathing & Pediluvia is the best remedy —

But there is a certain effect from Pediluvia that cannot be answered either by Stupes wrung out among the water or by its Steams which does not depend on heat, or warm cloths dry would do, nor moisture nor Derivation, or wett cloths & steams would answer the same Intention.

We should be exact in the degree of heat in the water for if too hott, it's found to encrease the fever, the proper degree of heat is 96 to 100 on Farenheits Thermometer but if it exceed this & rise to 102, or 104 it is generally found hurtfull —

Temperate Baths, or such Baths as when the Patient is put into them he has at first a slight sensation of Cold, but then feels it

it agreeably warm, have a very remarkable Effect on the Nervous System & take off Anxiety & relieve the head &c.

In all high Inflammatory Fevers attended with Delirium Subsultus Tendinum &c. when the Pat. cannot be taken up. Cloths wrung out of warm water, and applied to the Legs and arms supply the place of warm bathing but care should be taken to keep the Bed Cloths dry, & keep those places among the Cloths afterwards - It would be eligible if a patient could bear to sitt half an hour at a time but very few can stay up so long without fainting, & his legs among warm water up to the knees all this time.

In the beginning of Fevers in the Rigor or Shivering if a patient is put into a warm bath, it shortens the Continuance of the fitt & if put to Bed immediately brings on a Sweat which very often cures the fever altogether. The Circumstances of a Patient

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Patients fainting should not alarm a Physician, when there is Delirium; as there is reason to think that it will be of great service — When the Urine is pale and in great Quantity; the warm Bath lessens it & mends its Colour —

When the Nervous System is much affected & Blisters are improper warm Bath is the best thing that can be applied In Delirium & wenen Comatose Cases warm bathing is exceeding proper.

The Practice of killing & flaying Animals is barbarous and showers no good end only we are sure the degree of heat in them is what is proper. The warm Bath was used by the Antients, very much. Vide Dr Gilchrist on the use of Sea Voyages.

I think it would be a good practice when common people come to an Hospital, to put them into a warm Bath, because their skin what with work & what with Dirt is almost callous in many places & will not tran-

transmitt the perspirable matter

When the head begins to be affected in fevers it would be proper to shave it immediatly it cools, refreshes & promotes perspiration and where Delirium or Coma are expected; it ought to be done likewise before we apply a Blister a considerable while about 12 hours because in case it be any way scratched, the Blister will more readily produce strangury

I forgot to mention the Practice that obtains in warm countrys of pouring, cold water on the Patients head in great Quantitys for hours together & even till the Pain of the head & the Fever cease altogether.

Of Antispasmodicks in Fevers —

The chief & most effectuall of these are Musk and Ether, which I have seen very effectual in large Doses for this purpose: They answer only in Subsultus Tendinum best & Delirium & Musk given in the Quantity of 9i. or 3ss. in this Case I have seen very successfull in

removing these Symptoms; but they seem to have little Effect on the rest of the Febrile Symptoms. Opiates have sometimes been given in Fevers but their use & proper time of exhibition has not yet been discovered at least is not fully ascertained & in general there is a very great Prejudice among Physicians with respect to the administration of them at all in Inflammatory fevers, tho' there are certain Circumstances & Symptoms in them that would seem to indicate their use as want of sleep restlessness, Anxiety — In the decline of long continued Fevers I have given them with good success, & I think they ought not to be given in cases of Headach, Delirium, in Violent Inflam.ty Fevers, till plentiful Evacuations have been made & then indeed I believe they will be of service, but till that is done they rather seem to increase Delirium

Delirium – There are some particular Cases where, in the Struggle about the Crisis when all the Symptoms are remarkably more violent; Opium acts as a powerful Cordial & forwards the Critical Sweat. There is a particular sort of Delirium cured by Opium only & its the only Medicine to which it will yield. In some Fevers attended with violent Convulsions & Subsultus Tendinum proceeding the length of Convulsions nothing but Opium will command these Symptoms and in small Doses it rather increases their Violence but if given in large Doses perhaps 60 gts. of L.L. for a Dose it generally quiets them; and in all highly Nervous Cases where Opium is necessary small Doses do rather harm than good.

Cordials in very young & Sanguine habits do great hurt, unless they be much reduced by Evacuations, but when Inflammatory Fevers degenerate into Putrid

Putrid or slow Nervous Fevers, then Cordials are necessary and proper; the best Cordial I know is Wine it possesses all the Virtues and advantages of any of the rest of this tribe without any other Inconveniencies & I find Claret generally most liked. In Inflammatory Fevers where the patients strength is much exhausted, wine may be given altho' the Pulse be quick.

Castor and Vertentary are recommended by some but I do not think them proper. Spirituous Cordial waters I reckon no more than spiced Brandy There is a Medicine which I have not mentioned yet much cried up by some as a Cordial and Antispasmodick; but I think its vertues are not sufficently ascertaind yet the Medicine I mean is Camphor. Hoffman whose practice is very good & worthy your Attention, cries up the wonderful Antispas-

Antispasmodick & Cordial Qualities of 1/2 gr. of Camphor, but he is faulty in bestowing too large Encomiums on Medicines which to my certain knowledge have no vertues at all; Camphor under the quantity of 1 or 5 gr. has no effect at all on most people & if given in the Quantity 8 or 10 produces strange & very bad effects on the Nervous System in some people

Under this Class of Cordials, I reckon the heat of a healthy human Body applied to the Body of the Patient, because it has a very remarkable Cordial & refreshing Effect on the Nerves, especially to Children.

Of the Use of Blisters.

The Effects of Blisters in general are to Stimulate, to quicken the Pulse and to take off particular or partial Spasm, which they do in a surprising manner without causing any great Pain. When the Mechanical Philosophy was in vogue, they were esteemed

supposed to act by thinning the Blood and attenuating the Lentor.

Its a very prevailing Practice to apply Blisters on all cases of Delirium, & high fevers even before evacuations have been made, but in my opinion its not at all advisable to order them in this Case & I have always found them, hurtful in such Cases; and even when these Symptoms do encrease after them they immediately apply more sometimes to the Number of 6 or 8. I do not find it clearly proven that the Cantharides enter the Blood, even from the strangury; may not this be owing to their effect on the Nervous System? & we cannot imagine how they attenuate or thin the Blood; but that they quicken the Pulse is an undeniable fact, however in some cases where the pulse is kept up by local inflammation a Blister by curing this will lower the Pulse However their general Effect is to quicken the Pulse and make it a little harder

The Cases in which Blisters are proper

proper, after plentifull evacuation by bleeding so as to bring down the pulse; are violent Head Ach, Coma, Stupor, Languor, Depression and Topical pain; in Phlegmatick Habits & Women in general all bear them better than Men and particularly Children require them & in these we observe they never raise a Strangury if under 5 years of Age & are particularly serviceible in removing many of their Disorders.

I now come to mention the particular Cases where these are improper, or when their Application requires great Caution.

Early Blistering in Inflammatory Fevers before the pulse is rendered softer by Evacuations as bleeding, is very improper & when there is any great irritation of the Nervous System, the warm bath is more eligible than Blistering; but in some Cases even when there is Irritation after Evacuation blisters may be given: Phlegmatick people are those to whom they may be best applied & these bear them with very little Pain

inconvenience; while there are other habit
whom they irritate terribly; which is wo
the enquiring at the patient's of some Con
sequence to be known. Blisters are
improper whenever there is a tendency
to putrefaction or a Dissolved state of the Blo
in warm climates they are more improper
than in temperate climates
As to the particular Place of their Application
I shall observe that in all cases where there
is topical Affection, they should in general
be put immediately on the place affected; &
we find their Application to local pains &
affections supersedes the repeated Bloodings
which before this Discovery was the method
practised for removing these. And I believe
it is one of the greatest Discoveries in Medicine.
But in local affections of the Brain as inflam
mation Blisters applied directly on the head
rather increase the symptoms, in these ca
I choose rather to apply them first to the legs
next to the Back and last of all to the Head

head. Thus do very well in Cases of Stupor and Lethargy & in the End of Fevers in these Cases but when there is Delirium & great Subsultus Tendinum they are very improper & do mischief. If in the Beginning of Fevers when the head is confused & the Fever has not yet begun, in the time of the Rigor, a Blister be applied to the head, it prevents the ensuing Fever from appearing, & is said to cure the Patient of it. But in common Cases as was before observed Blisters should not be applied to the head till 10 or 12 hours after it is shaven, and Blisters on the Legs do not so readily cause Strangury as when on any other place of the Body.

As for the time necessary for a Blister to lye on, if there's no Strangury I think it may be taken off in 24 hours time, tho sometimes it will produce its Effects & be well dresin in the Space of 12 hours, but should be taken off when they begin to cause Strangury which is a very troublesome Symptom; Physicians observing this Effect of Blisters, when a Patient has

has a Stranguary before a Blister is applied
are afraid tho' the Case requires it to give
one, but this fear is groundless & a Blister
in this Case always cures the preceeding
Stranguary - There are some Patients who al-
ways upon having a Blister, get a Stranguary
& others whom it never affects in this way.
The best Medicines for preventing this are
mucilaginous soft drinks as of Alth[illegible] & Linseed.
Throw Camphor is said to be a specific
in removing this Symptom but I much
doubt of its efficacy this way & its not at all
clear that it has any vertue this way; when
it is rubbed on the Blister it is said entirely
to prevent it, but its not generally true even
some this might have been the Case how
ever. If the Stranguary is violent besides
drinking these above mentioned Mucilagi-
nous Decoctions, they should be given by way
of Glyster & Fomentations of them applied
to the Bottom of Belly & Perinaeum, which

will prove very beneficial both in easing the Pain of Strangury & abating of f. febrile Symptoms — The covering the Blister with Lawn and oiled paper do not prevent Strangury but may make it come easier off —

The Application of Blisters is but a Modern Practice; their Effects were indeed known to the Antients; but their application never became universal till about 200 years ago and then they met with great opposition from all the Regular Physicians of the Faculty, their great Supporters were Hyeronimus & Gafonia and to this day in many places of Europe they are but little used; indeed in England they have been more used than anywhere else The Mechanical Physiccans were the Persons who brought them most into Practice and especially Pitcairn. They have been abused both ways & many great men have shown too much timidity with respect to this application on Fevers, as Hall was a Practice indeed was always feeble, but his Disciple

Descriptions & other works are very valu-
-able; Hoffman too & Boerhaave, were ra-
-ther too cautious in this respect.

There are other applications that have the
same effect with Blisters, & have some ad-
-vantages over them in some cases, as that
they do not raise strangury, & their stimulus
is much quicker; a Blister will lay on 50 or 6
hours perhaps before it shall have any
sensible effect at all but these application
have their's very soon, and commonly com-
-pound of Powered Mustard Vinegar and
Black Soap; they are applied to the soles
of the feet with success in Stupor, Coma & Hot.
Headach, if previous Evacuations have been
made, with very good Success & if they raise
Vesications or inflammations Emollient
Poultices should be immediately applied
in their stead.

These are the Remedies used with an In-
-tention to assist or moderate the Efforts of
Nature and prescribed by Hippocrates his

his followers; but the Artificial Plan or when remedies are prescribed with a Design to remove the Disease at once & put a Stop to the fever without any regard to Nature or waiting a Crisis; we have seen success full or possible in Intermitting Fevers, but then we have here a Specific or Medicine that acts Directly by stopping the Disease & that without any Sensible Evacuation following it; but in Continued Fevers there has not been any yet discovered equally powerful with the Barbin Intermittents.
Antimonial Medicines are now prescribed with an Intention of taking away the fever and that with success; this indeed is no Modern Practice, tho' their use is much more frequent now than before Dr. James's time who introduced the Exhibition of an Antimonial preparation under the Name of James Powder, which is a composition of Regulus of Antimony & Red Precipitate Mercury; as all

all Antimonials do, it operates by Vomit or Sweat or Stool; but the Red Precipitate is now left out. It's effects are not always the same; for they vary according to the Contents of the Stomach; it is observed to succeed best when given in the beginning after Bleeding and the Contents of the Stomach and Guts have been evacuated, and it's operation as a safe, refuge is most certain. It has been said & Dr. James himself says that it cures fevers tho' no sensible evacuation follow & hence acts as a Specifick, this I never saw but do not deny the Fact. I have indeed seen it procure a very remarkable Alleviation of the Symptoms — However I know no advantages it possesses above other preparations of Antimony especially Tartar Emetic which I would rather prefer, because we have more the command of it in the Doses. James's Powder in the Doses it's given in, very often operates both by Vomit Sweat & Stool & by this violent operation has a very great Effect on the

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on the Nervous System; whereas Emet. Tart is given in exceeding small Doses & in a very timid manner by Physicians, & therefore can have no such force on the Nervous System but if given with sufficient Boldness & Im-per-suasion would be as effectual. There is one Dis-advantage James's Powder lies under which is that after the Patients case grows desperate & the Physician's hopes are gone the Friends pro-pose this remedy & it's accordingly given & fails; here it's blamed innocently and without Cause, and I believe upon the whole the benefit reaped from James's Powder may be quite less than from the Emetic Tartar, because the forward-ness of those that prescribe the former is not so ill consequence upon the whole as the temer-ity of the regular Physicians.

The Bath is a medicine which I have not mentioned yet in the Inflammatory Fever As soon as we begin to perceive any remark-able intermission of the Fever then the Bath is given; & in warm Climates, the very first sensible Remission of the Symptoms, should

should be taken to throw in the Bark. Emetic Tartar & James's Powder are very successfull in procuring these Remissions and the Bark has been given, before these Antimonials: when they did not prove effectual in removing the Fever; with very good Success: & sometimes when no sensible Remission could be observed, the Bark has been given & has cured the Fever

I shall point out those Authors that have in my opinion wrote best on this Disease & with respect to the Prognostics Symptoms Prosper Alpinus may be read as the best & Judopus Labius. you should likewise read Huxham, Van Sweten's Commentaries and Dr. Sydenham. These are the best on this subject I know.

Class 1st. Order 2d. Genus 3d.

of

The Putrid Fever.

The Putrid Fever is attended with the general symptoms of Fever abreadymentioned and is distinguished from the Inflammatory Cont.d Fever by a remarkable degree of Prostration of strength & spirits in the very beginning.

It has been called by different Names as Bilious Malignant, and Jail Fever, But there are Bilious Fevers which are not Putrid. We do not find this Fever any where accurately described; tho' some of Dr. Pringle & Dr. Huxham who have given a very full & accurate Discription of it, & some few since these have wrote on it.

The Symptoms attending the Different Stages of this Fever are as follows.

Two or three weeks before the Attack of the Fever or the Patient's being confined to Bed, there may generally be observed, alternate changes from heat to cold and the symptoms are worse at Night, properly so called. Loss of appetite &c

& the sense of Anxiety & restlessness, Tongue white thirst little; if the Patient in this Case or Stage is vomited, it generally prevents the further progress of the Disease or if he sweat & change the Air or Place of the Country, he is cured.

It is not easy distinguishing this Fever at first from the Inflammatory; unless it come by infection which is seldom or ever marks, & if upon bleeding, the Symptoms are not relieved we may suspect that its a putrid Fever; sometimes one Blooding will sink the strength & Pulse very much & few can bear twice Blooding without the greatest depression; the Blood taken in the beginning is seldom sensibly altered, but in the more advanced stages of the Disease, is found highly dissolved. This Fever attacks with more violence than the slow Nervous Fever; the Rigor is greater, the Heats sharper & more permanent the pulse more tense and hard & sometimes very irregular, being slower small and then more rebated [illegible], & slow again

In its first attack, there is a violent Headach with confusion of the Brain, Nausea Vomiting Pain in & Eye Brows which reaches to the Bottom of the orbit, The Eyes are full, heavy and misty, the Face blotted, livid, & sometimes yellow, a throbing of the Carotid Arteries, tho' the Pulse at the wrist is at the same time feble & small this always either precedes or attends a delirium & is a certain sign of a preternatural Determination to the Brain, there is likewise a Tinnitus Aurium, and as the Disease advances all the Symptoms are agravated, and what is very remarkable in this Disease, a sudden & great Prostration of strength, even altho' no Evacuation has been made, there is a sighing, sobing, Difficulty of Breathing commonly attended with Delirium, which is different from the Delirium that attends on inflammatory Fevers, or rather a kind of confusion of thought, the Patient seldom sleeps long and as the Pulse sinks the Delirium & Tremor

increase, but as the Pulse rises they wear off, which is contrary to what happens in Inflammatory Fevers. There is sometime a Dullness of hearing from the beginning & a total Deafness has been met with; sometimes the Voice grows very low, and they have often particular Cravings, but Nature points out by this her own wants; & the most common thing sought for is wine. In this Fever a Subsultus Tendinum is not so frequent a Symptom as a Tremor, with Lassitude, Pains of Back & Limbs, Sensation of heat & pain in the Pit of the Stomach; but when the Fever is more advanced, a greenish black & highly offensive matter is vomited; but this is not essential Symptom. As the Disease advances the Breathing grows hott, & fœtid, the Tongue dry & parched & sometimes grows black & furred & sometimes is found moist with a greenish border round it's Sides. The dryness of the Tongue often weakens the Voice & makes the Patient speak very inarticulate we should therefore be

on our guard & not mistake this inarticulation for a Delirious Symptom.

The Urine is various, in general Pale & whitish or reddish in Colour & full of Crudities.

If the Patient feels warm there is generally a Diaphoresis but if cold a Diarrhoea attends because of the stopped perspiration.

There is in this fever a heat which gives a very particular impression & taken notice of by Galen, at first feel not very hott, but afterwards it becomes pungent. The Skin is parched, & the Sweats are symptomatical & fœtid.

Thirst is very various at sometimes pretty Moderate & at others exceeding great & almost Unquenchable. In this fever when the Patient complains not of pain, his insensibility is owing to Delirium & Coma; Another Symptom of this Fever is Petechia.

Thus Petechia are not a constant Symptom or peculiar to this Fever, neither are they critical but merely Symptomatical, and are not always to be reckoned mortal; they do not invariably

the Surface of the Skin which is what mostly distinguishes them from the Exanthematous Eruptions; they are sometimes so small as numerous as to escape the observation of the Physician, but when the skin is narrowly viewed they appear clearly tho' at a very little distance it only seems a little redder than ordinary, the Places of the Body on which they are most frequently found are the Breast and Back, & the time or Period of the Fever in which they show themselves is' twixt the 5th & 7th Day tho' sometimes not till the Patient is dead

It is not certain if this Fever was known to the Antients, but if it had their accuracy of description and observation, would certainly have distinguished it from other Diseases, therefore as we find it no where in their Writers, we may conclude they knew it not.

The first Account we find of it, is in Fracastorius in the year 1505.

In Putrid Fevers the symptoms are always encreased at Night and a Paroxysm observes

ned; & indeed this may be said of Fevers in ge-
neral with few exceptions; in this Fever
there is often a partial sweat, throughout the
Day - & in general after the Pulse sinks till
Death there is less change of the Symptoms
from day to day than in any other Fever.

Worms have frequently been passed in this
Fever, & observed sometimes to come by the Mouth;
they have by many been reckoned the Cause of the
Disease, but this cannot always be & the case
is very seldom, for we often find these lying in
the Body without causing any sensible Dis-
order, but I do not deny that they are sometimes
the Cause of Fever.

It is likewise often attended with Dysury &
Strangury - & in some Cases the Head became
swelled & the the Blood when drawn was obser-
ved to be very fœtid and Dissolute.

I now come to mention some Symptoms
that follow this Fever.

We often find when this Disease is termina-
ted without any apparent sensible Cause

Crisis a Hectick Fever succeeds it, & Remittents or Intermittents: After a Crisis too there is commonly a total want of sleep, a Vertigo Tinnitus aurium; and Mortification in Back these Mortifications are very frequent, & not so very Dangerous when after long Fevers as when proceeding from any bad disposition of Body, & I have seen in over all Instances where there has been very large Mortifications of this kind cured very soon.

This Fever is likewise followed by Oedematous Swellings of the Legs & Anasarca, likewise by Hemorhagies from different places, all in consequence of the Dissolution of Blood

The Diagnosis. It may be distinguished from the Inflammatory Fever by the smallness & feebleness of the Pulse; the sudden prostration of Strength & Spirits & from the slow Nervous Fever by the greater thirst & Symptoms of Putrescency which are not found in so great a degree in the by much. The Duration of this Fever in general is 7, 14 or 20 Days but not commonly longer

twixt 14 and 20 Days & thirty Day is that on which the Change most frequently happens
The favourable Terminations of this Disease are about the State or Decline a gentle Diarrhoea with a mild sweat, but a Diarrhoea happening in the beginning is reckoned bad.
2d. Turbid Urine with a gentle sweat & soft Skin is favourable.
3d. Yellow turbid Urine with a Sediment, appearing about the 14th Day is good.
4. A Salivation.
5. Abscesses particularly in the Parotid Glands, Buboes in the Groin & Suppurations in the Scrotum & Testicles, or Axillary Glands are all reckoned Critical. When this Fever continues very long, if there appear no external Abscesses, by morbid Dissections we find that there are internall ones allways to be seen
Dr Pringle mentions a Case where there was a large swelling of a Parotid Gland without any appearance of this Fever, & upon applying emollient Cataplasms the Tumor subsided

subsided, but a putrid Fever immediately came on upon its disappearing.

6. The appearance of an Itchy red rush with large watery Blisters on the Back, and Eruptions about the Mouth & Nose are good in this kind.

7. Deafness in the Decline of the Fever.

8. When the Petechiæ change their Colour for a more lively & bright red it is a good Symptom.

Prognosis. In this Fever it is in General unfavourable & the following Symptoms are ickonued so.

1. A Violent Diarrhoa, is bad & when you stop it all the other Symptoms are rendered more violent; Involuntary Stools, and a hard swelled Belly are certain Indications of a Mortification of the Guts.

2. Cold clammy partial sweats, & profuse sweating in the beginning are bad.

3. Large livid Spots, called Vibices; these are attended with Hemorhagies, often, and are real Mortifications.

4. Miliary Eruptions like Measles of a dull livid

leuric hue are bad.

5. Brown and white Aptha in the throat succeeded with difficulty of swallowing &c an ill: and in generale every Ulcer & Sore; in this Fever has a tendency to Gangrene.

6. Dark bloody fœtid Urine.

7. Hemorrhagies from any part, as Gums Nose, bloody Urine, bloody Dissentery &c.

8. All Symptoms of Putrefactions

9. All other Symptoms mentioned as unfavourable in the Continued Inflammatory Fever, may here be noted so here.

Of Particular People who are most Subject to this Fever, and the Predisponent Causes of it to those are.

1. Evacuations which have weakened them much before, & none more than Salivation by Mercury, which makes or disposes them to have this Fever in a worse & more severe Degree; & those people who have it once are more susceptible of it again, & in this it's different from the Plague, which much resembles this fever in several other particulars

particulars as that it terminates in Bubos but those who have mentioned this Termination of the Putrid Fever, do not inform us whether such Patients ever had it again.

2. Other Contagious Diseases if they do not dispose to it are at least rendered worse by it's being near when they are as we find exemplified in the small Pox: for Patients in them, admitted into Hospitals where this Fever is generally grow worse & die even tho' the Pox were of the best & most favourable kind.

3. Those People who are under the Influence of the Depressing Passions, are here by made more susceptible of this fever & hence we find a kind of reason why the Relations of people in these fevers are more apt to been fected than any body else, even than the very Nurses who constantly attend the Patient.

4. Along Course of Alkaline Salts & Soap are said to cause this Fever, from the tendency to Putrifaction they induce on the Blood.

Blood, & Depolution.

Occasional Causes.

1. Putrid Steams from diseased Bodies & foul Air do undoubtedly act as occasional exciting Causes of this Fever, hence a reason why so frequent in crowded Jails, where it got its Name in Transport & hospital Ships, & in Military Hospitals. It's not the Consequence of heat. It's first Appearance was about 200 years ago & in the year 1758, at the Azores, it raged much & out of 6 Judges who sat on the Bench died the reason of this was supposed to be a stream of Air coming right upon them thro' a window from the Prison, loaded with the Putrid Effluvia. It has been suddenly produced, by the Air of a Morbid Gangrenated limb. And after Battles the Air being loaded with putrid particles of the Dead Bodies, acts as an occasional Cause & large Animals as dead Whales have given rise to it: likewise lakes full of Putrid & stinking waters or other Substances are such called among the Causes of it.

2. Living entirely on Animall Food, without Vegetables, and Antiseptics, or without the use of fermented Liquors, or eating Bread or Sugar.

3. Want of Exercise, for we know that all Animals have a Natural tendency to Putrefaction, and that by Exercise those particles which are no longer necessary to nourish are thrown off, & if not they being of a Putrescent Nature will cause this Fever arise.

4. A South wind with a humid close constitution of the air, make this Fever Epidemicall; it likewise induces Languor & Debility on the Nervous System we know very well.

5. Contagion is the most common, even without, any Predisposition or Occasional Cause this will generate the Fever ——

6. This Disease is encreased by heat & Moisture, hence is so frequent in hot Climates.

From the above observations we may account for the following Phenomena

and 1. Why Putrid Fevers are so frequent in Gaols, viz.t. from the Putrid foul Air

2. Why so often met with in besieged Towns this is from the want of Cleanliness & entire want of Exercise

3. Why in these Sieges these fevers attack the labouring & poorer sort of people first this is owing to their want of Exercise to which they were formerly more accustomed than the higher sort of People, and likewise to their want of Vegetables and Antiscorbutics and living wholly on Animal food & likewise to their being more subjected to the depressing Passions of Fear & Grief

3. Why the Turks are more subject to this Fever than any other Nation in Europe & is not owing to the Climate but to the effect of their using the warm baths frequently & eating so much Opium & wants Fermented liquors

4. Why pure the Putrid Fever is less frequent than formerly especially here in England The Reason is, formerly they used Animal food mostly & very few Vegetables and

and then Vegetables were so scarce & of consequence so dear as to be above the reach of the common people; they likewise eat less bread, used fewer Antiseptics & fermented liquors & Sugar very little & they were not near so cleanly as now.

5. Why Cities in general are less subject to Putrid Diseases than other places, seeing they are so nasty & have so many putrid Substances lying in the Streets & everywhere

The Air in great Towns is kept in constant Agitation, by the Motion of Carriages & the vast Numbers of Fires impregnate the Air with an Acid in great Quantity.

Proximate Cause.

Morbid Dissections throw no light on the Proximate Cause of this Fever at all, they indeed show some Putrid [illegible], and generally the Bowels as Stomach & Intestines are found inflamed and Gangrenous, and also traces inflammation or Ichor found in the Brain. This Ichor is found in the Ventricle & is particular Affection in that place. Spi[illegible]

Indeed the Proximate Cause of this Fever has never been fully explained yet so far as I know, but it's connected with the Proximate Cause of Fever already given some way or other, but so modified as to produce a Putrid Fever. It is some sort of Putrid ferment, in the Constitution in Consequence of Putrid Miasmata; which have an Assimulating Power, that first seems to affect the Nervous System; hence all the Symptoms at the beginning are chiefly Nervous, and these appear before the Blood is in the least hurt or diseased.

The Symptoms of Putrefaction only come on [illegible] Delirium has continued sometime [illegible] of these Miasmata & Contagious Effluvia [illegible] to be perfectly unknown [illegible] manner in which the [illegible] on the Nervous System. It appears, the Patient was at first killed by an Inflammation [illegible] consequent [illegible] one in the Stomach & Bowels, Inflammation & Abscess in the Head and at the same time independent of the [illegible] appears also to

also to prove Fatal in consequence of the gradual Extinction of the Vital Powers, upon which it seems to act most powerfully as a Poison from the first time it is admitted into the Body.

From all the Symptoms of Putrid Fever there appears to be a Putrid tendency of Bile with in the Bowels of the Dead have become remarkably putrid. It springs from another Origin the Shape of an Inflammatory Fever in warm climates Nervous Fevers often degenerate into this. Putrid Fevers have remarkable Analogy to the Plague in all the Nervous Symptoms, in Putrefaction, in Delirium terminating in Abscesses to which they both are frequently Critical. Has likewise a Resemblance to the worst kind of Bilious Remittent Fever. Some [illegible] the Nervous Symptoms to proceed from some [illegible] of the Brain, but there is no proof of this, because there are many Cases where nothing preternatural has been found in the Head, and at the same time all the Nervous Symptoms have taken place.

Thus

This is a Theory unsupported by no Facts that Nervous Symptoms can not take place without Topical Affection of the Head. On the Contrary Inflammation of the Brain are often attended with a remarkable Degree of Excitement of the Nervous Power in the Shape of the low Nervous Symptoms.

With regard to the Putrefaction it is very seldom that any putrid Disease is contagious unless attended with Fever, of which we have a remarkable Instance in the Gaury, which in general is not a contagious Disease, altho' in the Capital attended with the highest degree of Putrefaction & Dissolution of the Blood, but when attended with Fever it is always more or less contagious

There have been Instances of Gangrenous Limbs giving the first Rise to Putrid Fever but this is rare. It has been said that the putrid Effluvia attended with a dry Air is most apt to produce contended Malign. nt Fevers of the Putrid Kind, but this is not established, & when there was most Remittent Fevers. The Putrid Effluvia from corrupted Blood as in Dysentery, disposes to putrid Diarrhoeas & Dysenteries but tho' this has a foundation in Nature yet the

yet the Facts are not at all sufficiently established. Dehaen denies that in the beginning of this Fever the Blood is ever away; but as positly evident Dehaen never had an opportunity of seeing this Fever, or if he had his Physicians, as they often do have misled him egregiously. There is certainly a Distinction of Putrid Fevers from their Causes some are produced by Putrid Effluvia, some from Contagious Miasmata, others are the Consequence of Inflammatory Fevers & nervous, but the particular Differences are not yet ascertained nor do I think it very necessary as the method of treatment is the same & an Enquiry of this kind is now a matter of Curiosity than any thing else

Ratio-Symptomatum The Nervous Symptoms do not at all appear owing to Inflammation of the Brain, tho' they take place in a certain Degree when no Inflammation appears, but seem owing to some Operation of the Morbific Ferment on the Nervous Power. The Delirium depends on two Causes very opposite in their Nature, one the Consequence of Inflammation from a Hott Regimen, another from directly opposite Causes, viz. being Kept on too low a Regimen & undergoing too large Evacuations & the

is usually Bleeding. The Tawny Colour of the Eyes is not always owing to Inflammation, but is rather the Consequence of the Dissolution of the Red Globules. The Petechia are not always the Consequence of a Putrid Dissolution of the Blood tho' they are often considered as so. they frequently appear in merely Inflammatory Fevers, from too hott a Regimen, at the same Time they are often attendant on Putrid Fever. They appear to be commodeably owing to an Effusion into the Cellular Substance & their Appearance on some parts more than others may be because of the loose Texture of the Cellular Substance there Petechiae are sometimes the Appearance of Gangrene Parts; but this is uncommon. In some Cases it will appear that a slight degree of Gangrene will take place & the parts become sound again, without casting off but when it comes a certain length I apprehend the dead parts are more considerable. I have seen a Case of Late where there was a universal Tendency to Putrefaction, the Blood issuing from the Pore, Bloody Stools & Urine Oozing from the Gums, the Blood that came

came was black & putrid & the Flesh likewise Putrid over the whole Body particularly the Breast & Back, large Bumps on the Skin which at last became black & rose to a point with a small Blister at the Apex which always produces a Gangrene, but notwithstanding all this the parts healed up without any Separation indeed luckily the Patient was able to bear large Quantities of the Bark & wine & at last recovered.

The Morbid Affection of the Head may be partly nervous & partly owing to an increased Determination of the Blood to it

The Affection of the Stomach & Bowels may be partly Nervous & likewise in a great Measure owing to putrid Bile, later in the Disease to Putrefaction & Gangrene

The Hemorhages & putrid Excretions are evidently owing to the Depraved State of the Blood.

CURE. The Indications are the following

1. To mitigate in the beginning the Violence of the Febrile Symptoms which in Plethoric & Sanguine Constitutions are very severe, & this is principally to be effected by Evacuations & Antispasmodicks —

2. To promote the Excretions which Experience teaches to afford the most relief to the Patient, particular gentle Evacuations by the Skin & Belly; this is done by gentle Diaphoretics, Emetics, & Cathartics & plentyfull Dilution.

3. To support the Vis Vitæ & Stimulate the Nervous Power, by proper Cordials, Diet & the use of Blisters & Bath.

4. To resist the Putrefactive Tendency by the Bark & Acids.

Bleeding only takes place in the beginning of this Fever & only in very particular Cream stances as of Plethora or Inflammation in the Beginning of the Disease. If the Disease is Contagious Bleeding of itself is pernicious in general And a Repetition of it is very hurtfull. What indicates it in the beginning is Plethora, a Sanguine Habit, quick tense Pulse, difficulty of breathing, great Heat & pains in the Head & Back. In these Cases where the Head is much affected with marks of great Determination to it & on account of the great Prostration of Strength & Spirits I would not choose to bleed the Patient at the Arm, the taking away

taking away 3 ℔ vel 5 quas great Relief by Cupping and carrying ~~quas great Relief~~ & is perfectly safe Dr. Pringle is more against Bleeding than Dr. Mc Ro but this is entirely owing to the Circumstances attending the Disease as they describe it —

Vomiting is indicated in this Disease thro the whole Course of it from time to time by the Nausea & Inclination to Vomit. If a Patient vomits of himself it should be encouraged by drinking Chamomile Tea which is preferable to warm water, because it is a powerful Antiseptic & therefore in such Quantity may have considerable Effect in the Putrid Matter of the Stomach. In the Progress of the Disease as the Bowels often become inflamed the Exhibition of Emetics becomes very Dangerous & generally it is better to carry off the Collaries of the Remedies by gentle Cathartics

Thro' the Course of the Disease it is particularly necessary to keep the Belly open by gentle Laxatives & Clysters which ought to be of the Acids or the Saline kind as every Stimulating Medicine exasperates the Symptoms. The most proper Purgatives are the Neutral Salts, as

as Sal Glauberus, Tart. Regenerat. Cremor, and Decoct. Tamarind. They may be given at any time of the Fever and are indicated by sickness head Ache of the Mouth, Nausea Constipation Costiveness turned Belly Borborygmi & Gripes. But Nature often carries off this Disease by a gentle Diarrhoea or at least indicates the symptoms about the 8 or 9 Day; which makes Laxatives particularly proper about this period & when there is a Tendency to Costiveness Laxative Glysters should be employed every Day.

Diaphoretics Upon which the Force of Fevers formerly rested so much, of the Hot Stimulating kind do mischief approaching to increasing the Putrefactive Tendency. It may be laid down as a pretty general Rule in all Fevers, that what increases the Force lessens the Crisis but as the Patient finds Relief from Keeping up a gentle Moisture, this I think should be done by Diluents & Acidulated Drinks. The Volatile Alkalies have generally been condemned as rashly from a Force of mere Theory, because they are the Products of Putrefaction they must promote this Putrefaction. But they are now allowed to

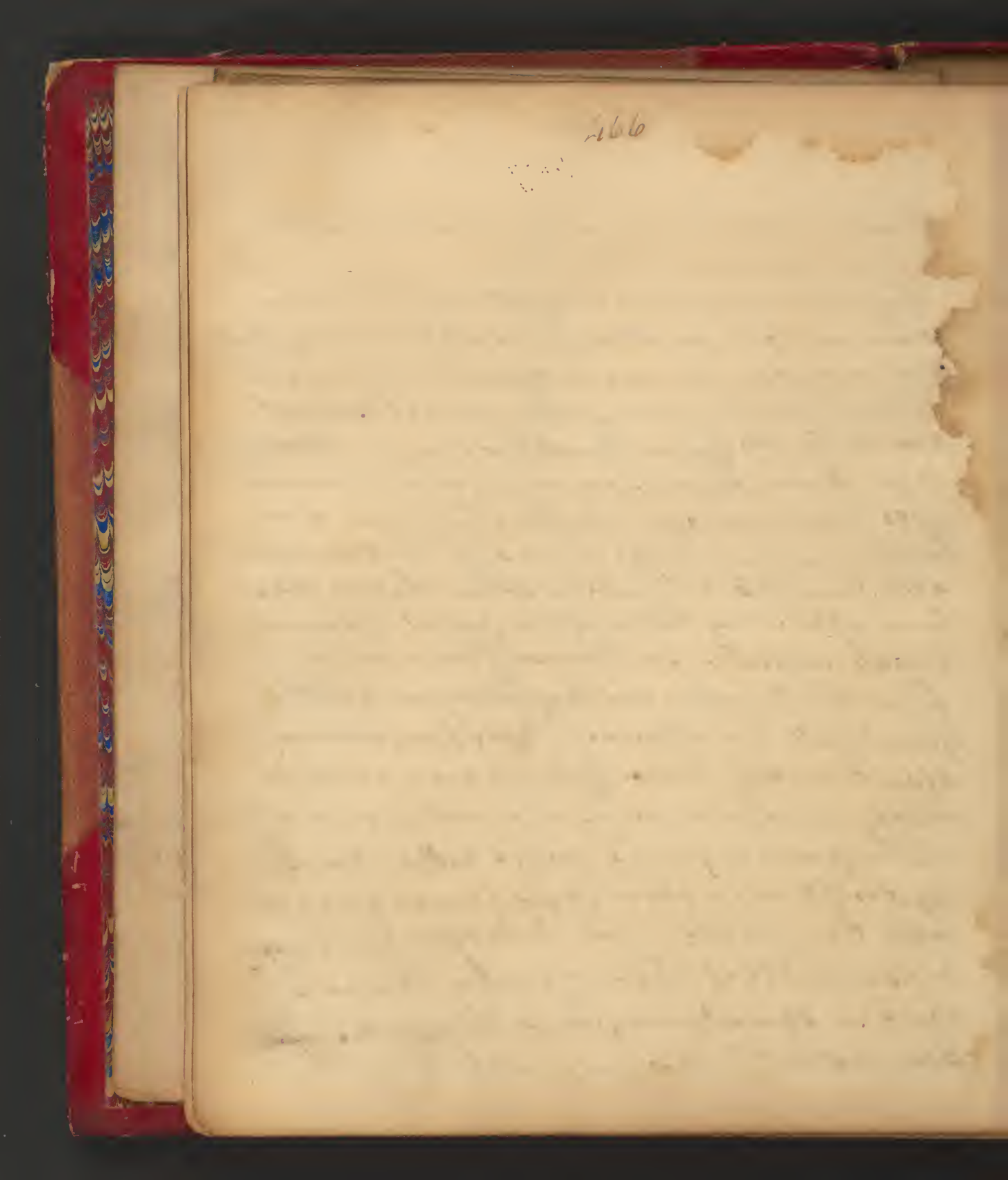
to be Antiseptick, tho I also say that the Vegetable Alkalies are bad Medicines in Putrid Fevers in large Quantitys because they stimulate very much & Consequently increase Putrefaction but in the small Doses it is commonly given in it can have no Effect on the Mass of Blood At the same time when we want a sudden stimulus these may be given with propriety but then they should not be continued in lest they excite too great a Heat which promotes Putrefaction In the Beginning of this Fever especially when it is the Consequence of contagion, Diaphoretics are found to be very useful & sometimes to carry off the Fever all at once; & the best method to perform it at this Period, is immediately to take a Vomit upon the very first Appearance of the Infection, then put his feet in warm Water for a while & directly go to Bed; afterwards taking a Dose of the Short Mixture to promote a Diaphoresis, & besides drinking freely of Diluting Liquors to keep up the Sweat or bring it out more effectually; & such people as are not healed by it might take a Bolus

a Bolus of the Thericaca & gr. 8 vel 10 Sal. C. C.
which appears to be a very powerfull & effectual
Diaphoretic; but this Method must only be
tried in the very beginning, for in the more
advanced Stages of the Disease it would
evidently highly improper.

The Contrayerva Powder is improper on ma
ny Accounts; it disagrees with the Stomach
which in this Fever is of very bad Consequence
& we never should load it with such things as
are disagreeable, unless we want to take away
chance of life from the Patient, because it will
be the better able to bear the Barks, which
this Fever I take to be a Medicine more to
be depended on than any of the rest or all of
them put together. All the Testacea are im
proper because they are Septic, not that they
enter the Blood but by meeting with putre
Contents in the Stomach there generate
Putrefaction & foul the Stomach exceedingly
Of all the Neutral Salts Nitre is the most im
proper because it is so remarkably offensive

offensive to the stomach and on that account so highly improper in this Fever.

The Serpentaria is a very powerfull Medicine when we look on it as Antiseptic merely but if we consider it to any disagreeable Bitter Taste we must conclude it improper on that account and as for its Cordial Qualities I see no Advantages it can have above wine, which has none of its Disadvantages. But there have been some Cases in which the Bark has failed & the Serpentaria succeeded & likewise where the Fever has been affected by the use of the Confect. Cardiac & Volatile Alkalie Instances of these we have from Dr Pringle, but they likewise had the plentifull use of wine. But I have never ventured any self when Cordials were at all necessary, in which wine did not answer all the purposes required, much better than the Cordial itself & as in these Cases it was given along with these Cordials a good dale of the Credit might be ascribed to it; however when there was a sudden stimulus required the Confectio Cardiaca, or Sal. C. C. are preferable to it.



Blisters in this fever have been very much despised. In general during the first stage & in the beginning they have often been found rather to exasperate the symptoms particularly the Delirium & Tremor; but yet when the fever has continued long & in the last stage particularly when the Pulse is much sunk & Coma come on, Blisters may then be of very considerable service & are highly proper unless the Putrefactive tendency be very great & then they are attended with this particular Disadvantage among others that the parts to which they were applied are very apt to gangrene; & therefore when Blisters are used the parts should be often inspected & carefully attended to. They are of the greatest service in this Fever when they occasion a plentifull Discharge of Serous humors, & particularly in lowe the Head; in Cases of Coma especially when its urgent a Blister applied to the Head itself is attended with most advantage so

Lect. 20
Fever
1768.

In this Fever Antispasmodics are given with a view to obviate some of the most violent nervous symptoms, the most powerful of this class & that are most proper here are Musk & Camphor; which last is accounted Anodyne & a promoter of sweat as well as Antispasmodic It is a medicine very much cried up for these qualities, but in my own experience I never have been able to ascertain the proper Dose as I have observed. It sits easiest on the stomach when joined with Vinegar in form of a Julep

Musk is a very powerful Cordial promotes Diaphoresis & sometimes carries off Delirium but should be given in considerable Doses as ℈ss. or ℈j. at a time; & if this is too much for the stomach at one g. xv. at least & repeat it again soon.

There is another Medicine of this class that is given with great caution & timidity in this Fever & that is opium, which of itself acts as a powerfull Diaphoretick, but if joined with Camphor, its operation as such is much more certain; if given at the time of

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of the Crisis when the Vis Vitæ is sunk & unable to throw of the Critical Matter. it is a very powerfull Cordial; & even after the Fever is gone, when the patient is much distressed for want of sleep it is exceeding proper and may be ordered without fear. Indeed it is the very best Medicine, for commanding the very violent Nervous Symptoms & nothing that I know will do but this in some Cases.

I now come to the last & most powerfull medicine in this Disease, & what is worth all the others put together I mean the Peruvian Bark. It was till of very late given in small Doses at one, but now the Quantity is greatly encreased. You'll find that Dr. Huxham gave it in but very small Quantities in Finiture joind with some other Substances, but now we can safely give larger Doses of the Powder to the Quantity of a ℥ at one every 2 hours. In the above Author there is a very remarkable Case where the Body was half putrid, cured by this Medicine given in small Quantitys. It is apt at first to run

=off by the Guts & produce a looseness but this is easily prevented by joining with it a few Drops of Laudanum.

There are some People, who cannot take it in substance; to these the next best form is the Extract, an Ounce of which may be taken in a Day; when there is any Difficulty in Breathing, the best thing to prevent the Bark's Increasing this is Syr. of Squills joined with it; & if we want to procure a Diaphoresis, Spiritus Mindereri, or any of the Saline Mixtures join'd with it, will have the desired Effect.

Besides the Antiseptick Quality of the Bark it cures the Disease even tho' the Blood is so far Dissolved as to produce Bloody Urine & Stools; and changes the Colour of the Petechiæ into a brighter one. It checks the violent internal heats & acts in them as a Cordial; and in general those People who have been cured by the Bark are less apt to relapse than those who are cured by other Remedies — I can

are some particular Constitutions in which the Bark in Substance answers much ~~better~~ worse than the Decoction of it, but this is rare I mean gives one instance of this; he has carried the use of the Bark in Fevers to a much greater length than any other person ever do & this is the great Obligation Physicians owes him, & in Exanthematous Fevers in particular he used it much.

There are some Stomachs to which every form of the Bark is exceedingly nauseous & to these we give it in Glysters as before directed

When given in Decoction or Tincture in this Fever we should add to it Elixir of Vitriol as much as will acidulate it, or if given in Substance 20 or 30 Drops of it along with it, or 6 times a Day. But as to the Superiority of Elixir of Vitriol over the Vegetable acids I am not at all fully satisfied, I imagine Juice of Lemons or any other Vegetable Acid to be better than it in this & most other Cases when it is thought proper to join them with the Bark. I come n[illegible] intention of Diet

Diet, In this Fever should undoubtedly be of the Generous & nourishing kind, as we may certainly collect from the great Prostration of Strength & Spirits, both which require to be likewise supported by Cordials, and as the very best I can recommend Claret; but this is usually given in too small a Quantity from a foolish timidity of it's energy & strength Fever; there should be no restriction in it's use till the Effects of it appear, this alone sh^d limit the Quantity & untill we find the Pulse heated & the Pulse evidently quickened we ought not to stop. If there is any Necessity for Dilution water is the best thing, but such Whey is the very worst form it can be given in tho it's a very common, it's Disagreeable to the Stomach when given with the heat that they commonly order it. One or even two Glasses may be given at one without doing any harm & a Bottle or 2 may be allowed in a Day; tho' formerly the Quantity ordered was only half an English Pint in that Space Some People are very fond of Rhenish or Mosselle

Moselle Wine beyond any other. Wine in general lessens the heat & lowers the Pulse.

Very remarkable Cures have been performed in this Fever by the Patients living entirely on Fruit, as eating Oranges in great plenty even ad libitum; & in these Fevers I have no ill Effect that can arise from them; only sometimes they cause a Diarrhoea for the most part very gentle, tho' sometimes it may become immoderate, but it may be checkd with opiates —

The Food should be of the Vegetable kind light and easily digested, and Aqueous too, but if the Patient is very desirous of weak Broth he may be indulged in it and likewise may have Beef Tea.

As a Cordial I mentioned wine as the very best, and all the rest as Theriac. Mithrid. Confectio Cardiaca &c. act only as Temporary Stimulants, but the Effects of wine are more lasting & diffuse; It is necessary to give the Patients a little of it very frequently every hour

hour, because in many Cases unless this is done they thro' the excessive weakness, will be very apt to faint, & here this is extremely dangerous because they frequently are carried off in these fainting Fits. They are sometimes so extremely exhausted as to be unable to be moved in the bed or set up without fainting & when it is necessary to remove such either for the sake of better Air or making of their beds the best way to prevent this faint is to carry them in a horizontal Posture, by putting pillows under them.

In Hospitals where this Fever prevails much No Caution prevents its great mortality unless thinning the wards & letting in fresh Air, & if we can in the very beginning ~~if we can~~ remove the Patient to a very good dry Air.

It is of Consequence to such as go abroad to the hott Climates, to know; that Sea Air has a remarkable good effect, on this Fever and the Bilious Remittent.

Pediluvia are of considerable use in removing

-ving some of the most Violent nervous symptoms as Subsultus Tendinum, Delirium &c. & procuring sleep, but we should be particularly attentive not to make the water too warm or let the Patient sett up lest he faint. fomentations of it applied to the limbs & hands seem most proper this has another good effect of promoting a diaphoresis —

Serpentary and Bitters are prescribed here as Antiseptics, but for reasons already given are not proper. And all Astringents are in some measure Antiseptick. I do not deny this Quality in them & especially in the Serpentary, but then they being given in such small Doses can make no manner of Change on the Blood, their Action is entirely confined to the Contents of the Stomach & Intestines which indeed they may in some measure Change but wine enters the Blood & its effects are much more diffuse & universall.

Of all the Neutral Salts given in Fevers I prefer the most desagreable to the Stomach & Palate

I now proceed to the particular cure of some of the most threatning symptoms and

1 A Violent Diarrhoea is best checked by opiates either by themselves or joined with Aromatics. The Tincture of Roses is a very agreeable Medicine & proper here; Red wine mulled with Cinnamon may be given as a grateful Cordial & proper Medicine in this Case; A Glyster of Theriaca to the Quantity of ℥ss. in ℥iv. of Milk is found very Effectual in Violent Diarrhoeas. But they should not be entirely stopped because it is dangerous Astrictia are prescribed in Diarrhoeas very often but are improper here because they are of a Septick Quality.

2 Vomiting is most effectually checked by the Saline Draughts in State of Effervescence if this fail Laudanum may be tried and providing it is not effectual by itself internally, mixed with oleum Camphoratum & rubbed into the Stomach it seldom fails and a Cataplasm of Theriac applied to the Pit of the Stomach is very good. The Tomina

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Terminations of this Fever are sometimes by Abscesses of the Parotid Glands, these should be opened as soon as possible & we ought not to wait till there is an Apparent fluctuation of matter, because it is of so thick & viscid a nature as we could not be sensible of any fluctuation, even tho' collected in considerable Quantity, & there is great reason to believe that their being not opened soon enough has been the Cause why these Tumors have not often ended a Critical Abscess - The same Cataplasms of Milk and Bread applied in the common way used by the Common People is not beneficial, because they soon grow cold, I think the warm Gum Plaster much better -

When the Tail Fever is joined with or terminated in an Intermittent, it is cured by the Bark as in other Intermittents

I formerly mentioned worms as a common appearance in this Fever, and that they were

sometimes voided by the mouth, when wer therefore there is very great sickness & uneasiness at stomach & a suspicion of worms a gentle emetic will be proper and then a Dose of Rhubarb and Calomel. The general Anthelmintick Remedies are by no means proper here, because they distress the stomach too much. & Calomel is in my opinion as effectual as any of them.

If the Patient is affected with a Dysentery, Emollient Fomentations applied to the Privates & Belly, with Mucilaginous Drinks as Decoction of Gum Arabick with Opent. Pulv. Dulc are very proper Remedies.

Oedematous Swellings of the Legs are cured by the Bark & Acids, with Diuretics & purgatives given once or twice a week. & I have experienced of Dovers Powder acting as a Diuretick, with great relief or any Emetic joined with Calomel will have the same effect. In this case the Patient is not very weak & under a slight Fever or violent Diarrhoea Vomitus or Hiccup evacuate the water most effectually, but if they

they labour under the above Diseases the Evacuation will be so great & sudden as to sink their strength and bring them to the grave because after such fevers as these the Blood is in such a Dissolved state. Blisters appl. in these Cases to the Ankles are very apt to gangrene. In Consequence of the Dissolution of the Blood the Patient after this fever for a considerable time is very subject to Hemorhagies, but this is removed by the use of the Bark, Acidulated Drinks & Cool Air.

Preservatives against this Fever are Cool dry Air, which is one of the best, great Cleanliness, plenty of Exercise, a generous Diet but avoiding Excess of drinking, because not subject to the Depressing Passions of Hypochondriacs is always followed by prostration of Strength & Spirits in these Circumstances the same people were susceptible of febrile Disorders besides after a Debauch people are very apt to catch Cold, both which are predisposing Causes of the Disease

to Disease

Midwives & People should never visit patients in these fevers fasting & likewise it would be proper to breath thro' a sponge Dipt in Vinegar especially if inspecting them nearly, and it ought to be a Rule with Physicians after visiting such Patients always to change their Cloths before they visit any other, because there is reason to believe the Infection has been communicated this way. I have already mentioned the Method to be pursued when we perceive the first appearance of this Fever & no more Directions on this head to those given about Intermittents.

Authors best on this Fever are Dr. Huxham and above all others Dr. Pringle; Dr. Monro on Camp Diseases; Dehaan on the fever of Rest

Cf. Cl. 1. Or. 2. Genus 3.

The Nervous Fever.

This makes the Typhus Nervosus of Sauvages but his Description is not at all satisfactory he says it's a Fever that lasts 2 Weeks the Urine and Pulse are as in health, and that there is only a greater degree of weakness than ordinary; this surely is no good Distinction for we always find the head affected & a delirium of the Nervous Power with other febrile Symptoms; the heat indeed is little more than Natural, but in general a very little Quickness may be observed in the Pulse; and there is another Symptom that distinguishes it both from the Inflammatory & Putrid fever viz. a total want of Thirst.

This Fever has never been accurately described till within these 20 years & Dr. Gilchrist gives the best and most accurate account of it I have met with in the Edin. Med. Essays

Essays and Dr. Huxham in his Treatise on Fevers gives a very good historic of it.
I shall now mention the symptoms that attend this Fever during its Progress, wch is divided into three Stages.
In the first stage as the Fever attacks very gradually, the patient will find himself a little out of Order for 2 or 3 Weeks before he is confined to Bed, his spirits during this time are low his Appetite gone, little sleep he loves solitude & seems better in the cold air & at sometimes has a slight Delirium. Now all these symptoms increase & he comes on a great Degree of Languor of the Faculties, after this slight Chills & heats may be perceived, but not so great as to deserve the Name of Rigor; there is likewise a dense pain or weight on the Precordia, a Giddiness of the Head, & frequent inclination to vomit; & when they do vomit nothing but insipid Phlegm is brought up, which is a sure symptom that helps to distinguish this from the Inflammatory, & Putrid Fever; in the last of

of these the Somelings are highly foul & bilious. There is likewise a total Dissolution of every thing, very little Thirst which is one of the Symptoms that chiefly distinguish this fever from the two former; these Symptoms are not always alike or permanent but commonly are sensibly increased towards Night. The head becomes more & more affected there is now Delirium & Vertigo; the heat now becomes greater than natural; the Pulse which at first was not quicker than natural now becomes weak & feeble and a little quicker. At this time there is a remarkable Difficulty of Breathing & Oppression on the Breast, with deep sighing which may be mistaken for an Inflammation of the Lungs, & mislead the Physician for if Bleeding at this time he advises it frequently sinks the strength so as never to be recovered again, this ought carefully to be attended to. And now there is commonly a great Degree of Perspiration on the Crown of the head, which is

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which is succeeded by Delirium. Here the Countenance is pale & sunk, and a great drowsiness attacks the patient, who tho' seemingly asleep is not at all sensible; at this time the Pulse becomes irregular being quick weak & slow then fluttering and intermitting. Flushings on the face with Hectick like heats are common while the Tips of the Nose & Ears are pale & cold & a cold sweat on the forehead. In this Fever the Extremities are always disposed to be cold; the Urine is pale & limpid & of a whey colour, without any Sediment: which makes another Difference twixt this & the Inflammatory Fever where the Urine is always red & is paribus of a high red Colour. The Tongue is moist & continues so to the last stage of the Fever & this likewise distinguishes it from the former fevers.

There is here a remarkable degree of Mobility of the Nervous System, as may be concluded from the uneasiness occasioned

-tioned by light or a little noise, in the very same way we see women that are highly hysterical affected.

This Fever has been observed to come on like a slight Rheumatism, with fainting & Depression of Strength & Nervous Power — There have been instances of its beginning like the Inflammatory Fever, with this Difference that the Pulse upon the Accession of the Delirium grows weak & contracted, whereas the very opposite happens in the Inflammatory Fever

These in general are the Appearances of the Fever till about the 7. day after being confined to bed. There is no possibility of observing the Critical Days in this Fever, because we cannot learn the time of its Attack, we can only reckon from the time of being confined to Bed, but in the Inflammatory & other Fevers from the Rigor beginning.

About the 7 Day then the Giddiness Vertigo & headach increases with great Tremulous Delirium and Oppression & Anxiety

Anxiety of Stomach, and cold Sweats on the Face and Breast: in these Circumstances a sudden change in the Colour of the Urine to pale or Clear is always a forerunner of violent Affections of the Head as Universal Tremor Convulsions, violent Wakefulness Raving or Coma. A Delirium often comes on with out any Inflammation of the Eyes which is a common appearance, I have known Delirium proceed from a morbid Affection of the Stomach without any Inflammation of Eyes perhaps in this Fever there is no Inflammation of the Brain or if it be it is removed at a considerable Distance from the Eyes, and indeed the Cerebellum seems to be principally affected. Now the tongue is dry & trembles when put out, & the Patient seldom complains of thirst which is very often owing to the Torpor or insensibility Now from the 9 to the 12 Day the Patient is subject to profuse Sweatings & Colliquative Diarrhoeas, which are not at all critical but merely Symptomatical. Evacuations

Evacuations, because under them the Patient is rather worse & more uneasy.

In the last Stage of this Fever, the Extremities become quite cold, the Pulse is quick & intermitting, so quick as scarcely to be discerned, there is Delirium & Coma with a very great insensibility, & the Urine & Stools run off involuntary, likewise a very violent Subsultus Tendinum.

The Duration of the Fever is uncertain sometimes it will last 20 Days, but if the Patient survive the 14 Day from being confined I seldom find the Disease prove Mortal in Fevers in general. If after the 14 Day a Deafness comes on it is accounted a favourable Symptom; unless when the Effect of general Insensibility, then its a bad one

There is a remarkable Symptom in this Fever mentioned by Dr. Huxham which I my self have often observed that is the Patient wont allow himself to fall asleep lest he slip away in that State & entreats

entreats the by standers to keep him awake; this is a strange timidety & attended with a very great degree of Dejection of Spirits. Deafness is apt to make the Physician believe the Patient more insensible than usually is, but he should be aware of this. —— This Fever has seldom any regular Crisis or Evacuation; but rather by gradual remission of Symptoms & I have seen it go off by a Comatose Disposition or a sleeping of 2 or 3 Days Continuance

There have instances occured in my Practice of the Patients continuing a little while & having a kind of Idiotical Behaviour even when he has been able to go abroad an home back & some say they have continued so always tho I never saw an Instance of this neither do believe it.

In this Fever there is no Judgement of the Issue of the Disease from the appearance of the Urine Delirium if it come after the 9 Day is not so very Dangerous, but if before that it is

is no good Symptom. This Fever has been observed sometimes to terminate in Apoplexy & palsy & in some Cases we may observe distinct Paroxysms every 2.d 3.d or 4.th Day, which are different from those exacerbations observed at night: this seems to indicate that the Fever will terminate in an Intermittent, which is farther indicated by the Appearance of a Sediment in the Urine, & this makes it probable that the Bark may yet be given with great success in this Disease, & has already been the Cause of giving it here; this Gentlemen I hope you will attend to as I expect great advantage from it in the Cure

Towards the end of this Fever all the Symptoms of Putridity come on especially if it has lasted long especially in warm Climates; but here Gangrenes are more frequent & are brought on by the lying wet among Foul & Urine that runs off involuntary, however they are welcome attended with great Danger and are often critical

There is a pretty remarkable Appearance
in this and in most other fevers which I know
not how to account for it is what the Vulgar
call a lightening before their Death, I have
often observed it; the Patient recovers his
senses entirely & speaks & acts reasonably
sibly & there is a very evident alleviation of
all the symptoms only the Pulse is very
low & weak, this Appearance makes me
very diffident, in cases when there is any sud-
den change of symptoms to the Better, to
give my opinion of the Patients Case.

The favourable symptoms in this Fever are
when the tongue continues moist, and
a natural Salivation comes on, when there
is a gentle moisture on the Skin & not
a sweat for its one of the worst symptoms
when the Patient lies soaking in profuse
sweats, if this moisture is universal
it's always attended with alleviation of
the symptoms, A gentle Diarrhoea is
good, but if violent it's very Colliquative
& bad; Abscesses of the Glands & Swellings

swellings, especially of the Parotides & Eruptions about Mouth & Nose in the Decline of the Fever. Miliary Eruptions are favourable & called critical because they appear for the most part on the Critical Days as on the 7, 9, 11, 14 but strictly speaking these as observed before, cannot be known in this Fever. I have often seen them appear with evident alleviation of all the Symptoms; but very frequently they are the Consequence of hott Regimen & here they will succeed Cours after Course to a great number of times, profuse sweating brings them out & I am persuaded their appearance in lying in Women is owing to the hott Regimen, tho' I'm not entirely of Dehaen's opinion: he says they never appear but in consequence of too hott a Regimen. These Miliary Eruptions are very often preceded by a Remarkable degree of oppression & Anxiety about the Procordia & stomach, which Symptoms have enabled me often to foretell their Ap-

Appearance. Apthæ of a brownish white colour are favourable, but if they are of a pure white colour they are bad.

I now shall mention the bad Symptoms which attend this Fever, and a great Difficulty of swallowing & Gulping attended with Hiccup may be reckoned very unfavourable likewise all profuse Sweats, & Copious Stools severe Diarrhœa, brown and black Apthæ & Petechiæ are bad Symptoms. We may pronounce the Patient in a dangerous Case when the Symptoms of Putridity come on, and severe Pains of the Back & Loins & as Coriza preceding this or any other Fever are bad Symptoms.

Antecedent Causes of this Fever

A Weak nervous Lax habit, a poor thin Blood, & great Evacuations of any kind Depressing Passions, great Study, or Fatigue exposure to Misery, Mercurial Salivation all dispose to this Fever. Infants under 6 or 7 years old never have it & Old people

people are not subject to it, but it chiefly invades the middle aged & youth, it is most prevailing in moist wet weather & in marishy Countrys. It is observable that where these Fevers are Epidemical the Common People are most apt to be seized with it, because they do not live on such generous food & drink nowing we see the wind Drinkers escape when this Fever is Epidemic; and this depends sometimes on the State of the Air, tho' it has been certainly contagious a sufficient from whole families being seized with it at once, even when not raging in the Place. I do not think that the Effeminacy of the people in high Station is a Cause of its frequency amongst them, because we likewise find it more so among the lower sort who live just as well & no better than formerly. Catching Cold has been ascribed as a Cause of this fever but it

it is not peculiar to it.

I shall now recapitulate those Symptoms that chiefly distinguish this Fever from the Inflammatory Fever.

In the Inflammatory Fever the Motion of the Blood is rapid & vigorous, but it's weak & sluggish; the heat & thirst are intense but there are seldom more than Natural the Urine pure is pale but in the other high coloured if the patient has not drank at dale, In Inflammatory Fever there are pains in different parts of the Body, its seizure is sudden, and attacks those of rich Blood & sanguine Temperaments, & the blood rest is sizy & dense but; in this Fever, there are not any such pains felt, it comes on gradually, & attacks those of a poor thin Blood and lax habit & the Blood is little altered from a Natural appearance. The Inflammatory Fever is most common in dry & Cold Seasons, these sufficiently distinguish

distinguish it from the Inflammatory Fever; & by the following may be well enough known from the Malignant; in the Nervous Fever there is slight heat no symptoms of immoderate Secretion of Bile or of Putrefaction, as fœtid Breath which may distinguish it, the Nervous symptoms, are pretty much alike in both, only more violent in the Putrid Fever & the Blood is always much departed in its natural in the Nervous Fever.

Of the Proximate Cause many theories have been given. Because the Appearance of the Blood was natural some have said it was in the Lymphatics, but to me it appears to be located somewhere else as in the Nervous System, but what this affection of the Nervous System is I cannot pretend to say. There is in this Fever a considerable Degree of Spasmodic Affection more than in many of the rest, yet this is a pretty universal attendant on

on it, we cannot call it the full Proximate Cause; the Circumstances that indicate this Spasmodic Nature, are a low weak Pulse, small & irregular & considerably contracted, these are in the increase of the Fever, but as it goes off the Pulse grows full firm strong & soft, whereas in Inflammatory Fevers the Pulse at first is strong full & firm, but in the decline small weak and feeble.

Sect 22 1st 2d 3d

I do not say, that this Spasmodic Structure is universally present in all Nervous Fevers; or that it is the full Proximate Cause of these Fevers; because there are many Instances, of a universal Relaxation, as we may see from the heat being equally diffused & the Skin all over soft & in a gentle Sweat, & in profuse Sweats which have been mentioned already among the bad Symptoms, there can be no Spasm present. But when I speak of this I understand it rather as a Symptom or Fact, & not the

the full Proximate Cause; what produces or causes this spasm I do not know; but we find it frequently connected with both Irritability & Debility of the system & these often without it, hence the one cannot be said to be the Cause of the other. There is certainly something wrong in the system, that has a great effect in depressing the Nervous Power especially with respect to it's energy on the organs of motion. but what Idea to form of this Debility or irritation I know not; unless I could account for the method of operation of the Nervous Power which I do not pretend to account for; & it's of very little Consequence in Practice; 'tis sufficient for us if we know what will raise or depress it.

The Indications of Cure come next to be treated of, and here we proceed upon two principles, and we draw our Indica

indications from observing the Patients relieved by certain Natural Evacuations which points to us the propriety of promoting these, as gentle Diaphoresis or Moisture of the skin, by mild Diaphoretics; exemplified farther in Diarrhoea & salivation both which when mild ease the Symptoms

2 From observing the symptoms, we are directed in our prognosis, as when we see a remarkable degree of Depression on Vital Powers we have an indication here to support the Vitals by proper Regimen by wines Cordials, Blisters, Stimulants &c.

3 To take off general Spasm from the System by Antispasmodics & Emollient Fomentations

4. To Alleviate the other general Symptoms that is those that are not so constant but occasional.

Nervous Fever never of itself [illegible] bleeding, unless it be in full & very sanguine temperaments [illegible] here

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where there are Signs of Inflammation: for independent of these Circumstances it weakens the Patient & sinks the Spirits

This Fever has sometimes been mistaken for a Peripneumony, the Consequence of which has been above observed, to be very dangerous but may be easily distinguished by the following Symptoms, in this Fever the Pulse is small and unequal, & the Antecedent and Predisponent Causes are different & even opposite to those of the Peripneumony, in this the Symptoms are very different, especially the great prostration of Strength & Depression of Spirits the breathing instead of being hot & laborious is rather a kind of oppression occasioning frequent sighing & sobbing here the Urine is pale & in the other high coloured, & the Cough does not attend the Nervous Fever

The None of these Symptoms singly are enough to distinguish these Fevers yet if joined all together they may be depended on as a sufficient Characteristick to know either

But in doubtful Case no harm can be in taking ℥iv of Blood from the Patient if he is not very weak in the beginning and according as the Pulse leads the Bleeding so is he to judge of the Fever

There are some Cases to be met with of without marks of Inflammation in the Brain, and in such Cases Cupping & Topical scarifications do not sink the Strength near so much as half the Quantity evacuated from the Arm. Vomites may be given here to evacuate the Glutinous Matter that lies in the Stomach resembling whites of Eggs of Eggs, their use is indicated by the Nausea & Reaching and Anxiety, what is brought up is a Glutinous Matter entirely void of Acrimony & Putrescency. The Effects of Vomites here are to dislodge this Matter to promote Diaphoresis & Salivation and so act as Antispasmodicks

They are particularly proper in the begin:

beginning of this Fever & have commonly the same Effect in carrying of this Fever as they were mentioned to have in the Rubra Fever if they are given at the time there said to be proper, & with the like precautions and they may be given at any time before of it if the above symptoms be present & especially if there is a delirium or stupor on which they have a remarkable good Effect. Sometimes there is a very great Deflux=ion which endangers choaking & then a Vomit is very proper & when the Spots disappear or are going away the Patients frequently in danger of strangulation in both these Cases I have seen an Emetic save the Patients life. The sickness of the Stom=ach does not always depend on the Matter contained in the Stomach, but is merely a nervous symptom.

The Proper time of giving an Emetic is in the Evening a little before the Exacerba=tion which is often prevented by it.

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I mentioned that Vomits were formerly given with a view only to promote Vomiting, yet Antimonials given in such small Quantities as only to excite a Nausea, & then ~~they~~ act as Antispasmodicks and Diaphoretics and likewise by procuring Remission of the Symptoms & paid the way for the Exhibition of the Bark.

In this Fever Patients bear the Operation of Emetics far better than Purgatives which by stimulating & not often causing great Depression of Strength & fainting, but in general Mild Laxatives should be given from time to time to prevent the Accumulation of the discharge this Glairy Effluvia generally one or two Stools a Day will be enough, but the Exhibition of Emet. Tartar in small Doses often does this & procures a Remission of Symptoms

This Effluvia not purged off brings on violent Nausea & Sickness, with vomiting

and sometimes a severe Diarrhoea; Gentle purgatives are most proper to carry off this but Glauber's Salts are not found to answer him so well as Small Doses of Rhubarb or the Bitter tincture of it; which should be given when Tartar Emetic is not to be sometimes the Patients Stomach will not bear any sort of Purgatives, & in this Case Emollient Glysters may supply their place. of the Regimen

It is necessary that the Patient should breathe a fresh & Cool Air, this has no tendency to check the Moisture on the Skin as has been vulgarly supposed. As this Fever is of pretty long Continuance, it is necessary often to change the Patients Linnen; there is a great and prevailing prejudice amongst people against this Direction, lest it check the Moisture on the Skin, & when Physicians tell them that a Moisture is salutary they always put on more cloths till they raise a sweat which is often dangerous. But the Changing

of the Patients linnen is attended with no sort of Danger provided it be done with common Care & is particularly necessary in this Fever because of the Involuntary Stools & Urine, the Effluvia of which must certainly have a bad effect on the Patient & are often the Cause of Gangrene in the Back. In the beginning of this Fever it is necessary to shut out the light and as much as possible prevent Noise, because of the great Irritability of the Nervous System especially by these.

There is no necessity for the Patient drinking much in this Fever, however it may be sometimes proper to offer him one now & then, because he would never call for any thing on account of the great Torpor & insensibility; if he were in quantity sufficient to support his life it is enough. In the End of this fever if the Patient calls for it he may be allowed weak broth, and Beef Tea, or hartshorn & Calffoot Jellies

a wine for a Cordial, it's the best of this class
& its Effects are most lasting, here it supports
the Nervous restrains Colliquative Sweats
Supports Critical & Miliary Eruptions makes
the Pulse slower and fuller, & in general is
rather cooling, it removes Delirium even in
Cases where the Eyes are inflamed, it likewise
carries off the headach & relieves the Jactation
or tossing & procures sleep when Opiates
have failed, and in Comatose Cases.
Besides all this it is the most grateful
of any to the Stomach, & in all diseases
where the Stomach is so much affected as
this what sits easiest on it & is most agreeable
should be well attended to by Physicians
We Are highly indebted to Dr. Gilchrest
for introducing the liberal use of wine
into Practice in these Fevers. Best form
is plain old Wine, which has not the least
tendency to check the Diaphoresis & Claret
good old sound Claret to be the best.
Quantity of it should always be regulated
by the Effects it produces. I do not mean

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mean that were constantly and uniformly produces all their effects else we should be possessed of a Medicine that ~~would~~ always & in all Cases would cure this Fever I only mean that it has been observed to produce all these effects & indeed its a medicine of the most extensive use in Practice I know and I presume that by the plentyfull use of wine, Antimonials, Blisters & the Bark we could want all other Medicines in the Cure of this Fever. Cold water may be given here too it acts as a powerful Cordial & Deaphoretick and there can be no Objection against its use as in fevers attended with Topical Inflammation — Also Diaphoreticks. it's necessary to keep up a gentle Deaphoresis but those that are very stimulating & hott as Cal. C. C. Quart. Serpentar. Confect. Cardiac Safron &c are not proper here; & possess no Advantage above wine, should never be given unless when a quick stimulus is necessary, they heat & increase the Irritation especially in the beginning of this Fever

and by the bye Safron is the most singu-
-lar of the whole Class.

Antispasmodicks are Internal or External
and Musk is the most powerful I know
when given in large Doses of ℈ss & Gr. every
3 or 4 hours it cures off Subsultus Tend-
-inum & Delirium, I have likewise tried the
the Æther with success but its not so power
-full as the Musk. Opium is given to advantage
in the End of the Disease it cures the Restlessness
Anxiety promotes Diaphoresis & takes off
Spasm, but its effects are not certain, for
I have found it encrease the Delirium and
head ach, which wine has removed; however
Opiates are useful for checking Violent
Diarrhoas, in the beginning they abate the Anxiety
sighing & prevent Delirium.

External Antispasmodicks are Fomentations
they moderate Subsultus Tendinum take
off Delirium & promote Diaphoresis, if the
water is too warm it will make the Patient
faint & he cannot set in an Erect posture

hence the necessity of taking him out of bed on a horizontal Posture, and a temperate Bath acts here as the most powerful Antispasmodick, as before observed.

Blisters are often applied in this Fever

And as was observed before if at the first Attack of it a Blister is put on the head it prevents the fever; but after the Patient has been confined to Bed Blisters have a bad effect, they often encrease the Subsultus Tendinum & head ach, but after the fever has continued 2 or 3 Days they may be given one at a time after another with good success they are observed to ulcerate more deeply in this Fever than in any other wherefore proves of use to the Patient. They are indicated by Pustles breaking out about mouth and Nose, this & the circumstance of their Ulcerating has given cause to some to ascribe this Fever to great Acrimony. During the time the Blister lies on I have observed the Pulse contracted and hard but upon removing

removing the Blister it became full & off.
We should make it a Rule always to shave
the head in the beginning of this Fever &
repeat the shaving every second or third Day
and bathe it frequently with Vinegar & water
I always prescribe Blistering to the last & espe-
cially in Comatous Cases find it serviceable
but it affords the greatest Stimulus I know
The properest time for applying a Blister
is, that it may begin to operate when the
Patient is free of Fever, but the common
time is at bed time when the Exacerbations
come on however this is wrong
When the Patient is very pale it indicates
the use of Cordials, & a great Depression of
the Nervous Power to be present.

Lect 23 9 Nov. 1768.

There sometimes occur Cases where there is a sud-
den Depression of Strength & Blisters are indicated
but I have seen several Caps on one after another
but never any very good Effects from so many
at one; in such Circumstances Sinapisms ap-
plied to the feet are much better than Blisters &

& are attended with none of their Disadvantages they neither increase the Subsultus Tendinum nor do they heat so much & never produce a Strangury, & besides they give a quicker Stimulus But if they are long kept on they are apt to raise Topical Inflammation & blister the Place, but there is seldom danger in this altho they do Allurate, because the Discharge is often of great Service to the Patient.

In the beginning of this Fever when the head is much affected I have seen very good Effects from cold Applications of Vinegar & water or Aqueirate; they refresh the patient are antispasmodic, keep off Delirium & procure sleep & these cold Applications are particularly useful when there is Sanguine Congestion or Determination of Blood to the head which we know from the red flushed face and the throbing of the Carotid Arteries; but in Cases of Spasmodic Stricture being the Cause of the Affection of the head, when the Countenance is pale

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pale & no marks of Congestion warm Applications afford remarkable relief.
I have mentioned that the Bark was given in the Decline when there appeared regular Remissions; but towards the beginning it has been given with Success and acts as an Antiseptic & even as a Febrifuge; is likewise Antispasmodic, these are evident Effects of it But I myself have often seen it ordered & done so myself in the Decline when no sensible Remissions appeared, unless those that commonly happen at Night, with very good Success too I think I have given it too with wine to support the Nis. Vita & I think there is no danger in giving it tho' there remissions do not appear, and it has often been given in continued Fevers in the Decline but seldom in the beginning — The Bark either in substance or Tincture is the best & most effectual Medicine for checking the violent & colliquative Sweatings, & especially if a Dose of Rhubarb be

be interposed to take off the Determination of the ~~Blood~~ Humors from the Skin, the Rhubarb may be given by itself or out of the Patent draught. Then sweatings should not be suddenly checked, otherwise they bring on excessive Sensation of Load on the Precordia, and fainting. Indeed they are frequently the consequence of keeping the Patient too warm, & if there is any Disposition to sweat much observed, there should be few Cloths put on & a cool Air in the room. Sometimes a Blister has stopped these but no Symptom requires greater Delicacy in its management than this.

A Violent Diarrhoea is checked by Anodynes & Emetics, especially if joined with Fevers, rather as on Dovers Powder, but if suddenly stopped may on peasea, Cholick, & Delirium.

When Petechia & Hemorhagies & other Symptoms of Putrescency come on, they are best checked by the Bark & Acids with red wine, Ane

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And Aphthæ in the throat are cured by Gargles of Mustard whey or Figs with honey & Vinegar & if there is a great Quantity of Viscid Mucus a gentle Vomit is of service and for dissolving it a little Caustick Alkali mixed in the Gargle which is the strongest solvent of human Mucus I know.

In order to prevent a Relapse in this Fever the best Course is the Bath Exercise, & before these the Flesh Brush with Cordials & a Restorative Diet

The Authors I would recommend on this subject are Dr Gilchrist, Dr Hurham Dr Whyte

I formerly mentioned that I thought the Fever required a very Different management with respect to the Cure & have therefore treated them separately, but it's impossible I should give Directions how to manage every combination of these, & altho' I could the Physicians own Judgement must be the only direction to him & according as he fixed the Disease partake more of the one or the other Genus would

e is his Practice to be varied
The next Order of Febrile Diseases is Remittent Fevers which I now come to speak of.

Class 1st Order III.

of Remittent Fevers.

These Fevers are attended with the General Febrile symptoms, which at certain times remitt of their Violence considerably but never so much as to make a perfect Intermission.

1st Genus Is the Ardent Fever which is the Causus of the Antients. It may be distinguished from the Inflammatory continued Fever, by having distinct Remissions every third Day, & in this we find its affinity to the Tertian Ague; likewise by the intense heat and extreme dry and parched Skin and the excessive Vomiting. The Urine

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Duration of it is shorter, most frequently terminated in four Days, & seldom lasts seven, tho' in some Cases it has been known to continue fourteen Days. this Surgeon.

It attacks with severe Chillness succeeded by intense heat, which is most frequently felt inwardly, & especially at the Region of the Stomach, and during this heat the Extremities are commonly cold

The Pulse in the beginning is extremely hard and frequent, afterwards feeble & irregular, and the Remissions are somewhat analogous to the Intermissions of a double Tertian; There is an excessive bitter taste of the mouth, a violent head Ach & Delirium a constant Inclination to Vomit, & what is brought up is exceeding Acrid Bile; which often is ejected by Vomit & Stool, & is so excessively Acrid as to excoriate both fauces & Anus & even the great gut, as we see from the Excrements during

[illegible]

lunged with Blood; However if the Patient
is costive there is still greater Danger be-
cause of the accumulation of this highly
acrid and poraceous Bile; it will bring
on inflammation of the stomach & bowels
When the Vomiting & Bilious Diarrhoea
is very copious there is a great resemb-
lance betwixt it & Cholera Morbus, & these
plentiful Evacuations of it often cure it
The Breathing is quick & very laborious
and a great tension of the Hypochondria
is observed & is sore to the touch, there is
a Disposition to faint, & the Urine is
yellowish & red, the Countenance is also
tinge with yellow, it is peculiar to warm
Climates. At the End it puts on the ap-
pearance of the Putrid Fever, there are
likewise universal sweats without any
relief of the Symptoms, and Hemorrhages
all the Secretions appear putrid & fœtid

fœtid, and Gangrenous and Petechiæ appear in different parts of the Body.

The Crisis of this Fever is most commonly by Vomiting and purging in the beginning & sometimes by great Hæmorrhagies from the Nose, or by gentle Sweats; when this runs into an Intermittent Fever all the Violent Symptoms cease and the Danger is gone; in some Cases it runs into the slow Nervous kind, but this is rare; at a[illegible] times instead of Remissions, a Paroxysm happens on the second day, which is always a very unfavourable Appearance & not without great Danger; There is often in this Fever Topical Inflammation especially of the Stomach & Bowels, and of the head. It is not common in Cold and temperate Climates, & the places where it rages most are Italy and the South of France, there etc the prevailing Disease

The Predisponent Causes are Plethora, Sanguine Temparament, & Prime of Life, it sel

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seldom attacks Children or old People
The occasionall Causes are violent Passions
which have been known to bring it on
in the Space of one hour & we all know
that these Violent Emotions cause a very
great Secretion of Bile even in those Cli-
-mates, where people are not by far so liable
to them as in the Places above mentioned
it is occasioned by excessive Fatigue, and
being much exposed to the Sun, but above
all by the Cold damps in the Evening; drink
-ing of Spirituous Liquors is likewise a Cause
In the Proximate Cause all the light we
have from Morbid Dissections is inflam
-mations of Stomach and Intestines and also
Gangrenes in these, there is found in the
head Sanguine Congestion, & Inflammation
and Suppuration of the Brain; the heart
is considerably enlarged and full of Blood
there is sometimes Inflammations of
the Lungs, but especially of the Liver, which

which is enlarged & often suppurated & the Gall Bladder is found distended with black porraceous Bile, the excessive degree of acrimony of which requires a quick discharge of it.

The Indications of Cure, are to moderate the great violence of the Febrile Symptoms, & especially the heat and thirst, this is done by Bleeding, by Cathartics & Vomites & Emolt. Fomentations and Acids.

To temperate the excessive Acrimony of the Bile, & this is effected by Emetics and Cathartics, by Acids and especially by Cold water. Bleeding in the beginning is no doubt very necessary to take off the Plethora & mitigate the Violence of the Symptoms, but if repeated it commonly sinks the Pulse, & besides often causes it degenerate into a Malignant Fever, and even in Cases of Topical Inflammation, we shall find it necessary to use topical Bleeding & not to open a Vein,

for reasons which are needless here to repeat and we even find Natural Evacuations of it fatal; when the fever has continued three or four Days the Blood is always putrid and dissolved.

We should be very Cautious in the use of Vomitos in this fever because of the great Acrimony of the Bile & in consequence the Aptness of the Stomach and Intestines to inflame if any thing stimulating is applied to them; if the Patient vomits naturally we should endeavour to promote it by giving plenty of Diluent Drink; & if we are obliged to give Vomitos Antimonials in small Doses are best but twixt two Evils the least to be chosen.

There are two very good reasons for giving Vomitos here. to discharge the Acrid Contents of the Stomach and to procure a Remission of the Symptoms, which Antimonials in small Doses often do; but if we are afraid to give a Vomit, or the Patient is Costive, gentle rolling Purgatives should be used and

and Fruits are extremely proper here, and the patient may be allowed to live on these entirely, which will keep up a gentle Diarrhoea and correct the Acrimony of the Bile, and Nature seems to point out the propriety of eating them largely as this Fever is seldom met with but where these are in the greatest Plenty and Variety.

In Diarrhoea it is often found necessary to give repeated Emollient Injections to defend the Rectum and Anus from the Acrimony of the Bile and take off its Stimulus. these should be either of warm water or with Oil

Heating Cordials are particularly bad in this Disease, & when any thing of this kind is needed wine is by far the best & Rhenish wine or any other Acidulated wine is good. It is in this Disease that the best Authors, of those Countrys, where it is most common, recommend the use of Cold water in great plenty, unless where the Stomach is inflamed or any topical Inflammation, but even in this Case I presume it may be allowed in

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in small Quantitys at a time, it is the most effectual Quencher of the Thirst, & brings down the Febrile heat, it is likewise a powerfull Cordial and Diaphoretick, it checks the excessive Vomiting & Purging; in Italy they allow Iced water & Fruits, & there is an Instance of one patients drinking 10 lbs of water at one time without any bad Effect. It is a practice too in Italy to prescribe cold Glysters, but there is a very general Prejudice against them here, but if there be no topical Inflammation I can see no harm from them, they have likewise been observed to stop Hemorrhagies but its not a Practice I would recommend to you here.

When the Skin is very Dry & parched Pediluvia are very useful but the patient should be removed in a horizontal Posture & I believe the Semicupium would be very good

Cold Applications to the head relieve the Pain and carry off Delirium, Spiet animals are used for this purpose especially in this Fever

Fever, and recommended by the greatest Authors, but they are egregiously mistaken in the Reason they give for this practice they say the Animal Draws out of the Body all the putrid Matter of the Disease, but what they call the putrid Matter is only the Juices of the Animal turned putrid by the heat of the Body of the person they are applied to, and not Drawn out of the Body, by them.

In this Fever the Diet should be of the most cooling kind, with cold and fresh Air and the liberal use of Fruits

The Authors I would recommend to you are Boerhaave with Van Swieten's Comment.ys Hoffman, Baglivi, and Forte.

The Bilious Remittent Fever.

II. Genus. of Remittent Fevers is the present which I choose to describe by itself in a particular manner, because it often proves fatal in Camps and to Europeans when they go into the warm Climates; It is most frequent in Autumn, sometimes it is Epidemic and is indeed seems to be always Endemic in hot Damp Countrys, & seems to be the true product of heat and Moisture.

I mentioned before that in Spring Diseases are generally attended with an Inflammatory Diathesis of the Blood and in Autumn with a Putrid, in these the Stomach and Bowels are principally affected with a great tendency of Bile very Acrid and likewise that the head was affected, and in this Season does this Disease most prevail.

The violence of the Disease is varied as the Situation is Dry or Elevated, and then the Symptoms are mild for the most Part, but if low and Damp they are violent and Dangerous.

This Fever begins with Coldness & Lassitude Pains of the Head and Bones Dulness & Sensation of Oppression at Stomach, the fever is always remarkably increased towards Evening great Thirst, parched Tongue; headach, Restlessness & Delirium. Violent Thirst in the Night & towards Morning partial Sweats, with some remission of the Febrile Symptoms. If it is neglected it offend generates into the Continued Fever without Remissions & then is soon fatal; sometimes the Fits are carried off by Diarrhoea; and sometimes it begins in formofa Continued Fever.

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The matter that is discharged by vomiting and stool before the demonstration of Emetics and Cathartics is exceedingly acrid & Bilious & hence the name of the Fever; they are so violent & copious as to resemble very much the Cholera Morbus; when they are so they are observed frequently to carry off the Disease. It is likewise observed to be carried off by a copious Sweat equally dispersed over the Body — and by the above Evacuations by Vomit

vomite and stool and urine Hemorrhages have a very great tendency to make the Intermissions & remissions more perfect; and in hot Climates Hemorrhagies are generally unfavourable Symptoms and proceed from a Dissolution of the Blood; the state of which varies considerably in this Disease

The Remissions of this Fever are not preceded by any Chillness as the attack of it is; it is often attended with hard Belly and Costiveness which are very bad Symptoms

Worms are sometimes in this Fever & are of the Teretes or round kind, they constantly occasion an increased violence of the Symptoms, with Gripes - there is always a Yellowness of the skin more or less attends this Fever, but not so great as in the Yellow Fever of which I shall treat separately. In General some Degree of it is favourable if it appears about the 8 or 9th Day, but if sooner it is not a very good Symptom

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There are no Critical Days observed in this Fever; and the most favourable termination of it is into an Intermittent or desternetly remittent, to bring it to either of these Types should be the Physicians chief Desegn in his Practice The most unfavourable is when it degenerates into a Continued Fever this in warm Climates almost always runs in to the Putrid Malignant Fever which generally carries of the Patient in a very few Days; If the Belly is not kept open there comes on a violent Dysentery which proves fatal in 2 or 3 Days Deafness is a favourable Symptom as well as in other Diseases.

In Marshy Countries this Fever is always more violent in proportion to the Degree of Marshine & is very apt in 2 or 3 Days time to run into the Putrid kind especially in Autumn but as Winter advances it becomes milder. It very frequently att

attacks in the Neighbourhood of Marshes all of a sudden with Delirium, without any previous Notice or Complaint, as our Soldiers often experienced in Flanders when sent out a foraging near any Marshy being often immediately seized upon their coming within reach of the Vapours of this Marsh, with a Delirium; it likewise invades in this same manner when its owing to Insolation; There is for 2 or 3 Days before Death a strongly putrid Smell felt about the Patient & a strange regularity observed in his Pulse. In warm Climates in this Fever the great Prostration of Strength & Depression of Spirits is owing to the same Cause as the sudden attack of the Disease viz. to a general Disposition or Tendency to Putrefaction. This Fever does not differ essentially from the Ardent fever before mentioned, but that in it the Remissions are not every 3d Day, and only arises from Cold or all the occasional Causes in general, but

but this is Endemic in particular Climates:
the general way of treating this the Yellow
and Ardent fever is much the same.

I now proceed to speak of the Antecedent
and Procatarctick Causes of the Bilious
Fever, and in damp Countries we always
find it Endemic if they are warm, and in
Rainy Seasons its Epidemic one a year
always in these moist warm Climates. It
is one of the most mortal Diseases in Camps
especially in Autumn. The Common Soldiers
have it generally in a much more violent
degree than the Officers, who generally have
it either not at all or in the Shape of a Ter-
tian or Quotidian or at most but very Mild
This is not owing to their living more soberly
than the common men, but they are less ex-
posed to the heat of the Sunny Day and the
Evening Fogs, they have better Quarters
& drink more wine. The Common Men a-
gain that were exposed all Day to the heat of

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of the Sun and then were appointed Sentinels at Night to be exposed to the Fog never missed to have it either in form of an Intermittent or Remittent Bilious Fever; it was observed that when the warm weather was corrected by a frequent fall of Showers, the fever ceased, & we in general see that these kind of Fevers are much less frequent even in marshy wett Countrys when the ground is covered with rain than when the water is almoss exhaled the reason is evident because of the Putrid Vegetable & Animal Exhalations which has been mentioned in when on Intermittent fevers.

There are other predisposing Causes as Excessive fatigue, and Drinking; Gluttony likewise and Intense heat of the Vertical Sun; or a Sudden Check to the Perspiration by putting on wett cloths when hott, and lying on the wett ground. The

The most frequent Cause of Mortality among our Ships to the East Indies, is the Sailors going ashore to water and sleeping in woods all night, which proves at in its worst shape, those that do this Service should be those that are accustomed to the Country and it ought to be done in the Day time.

Not long ago there was a fever of this kind that raged at Bydere & proved so mortal as to carry off at least 2/3 of the Principle Inhabitants, described by Dilleno who was at that time in high Repute but from his Manner of treating we may account in some measure for the Mortality, his Theory of the Disease egregiously mislead him here to exhibit such remedies & Regimen as in effect greatly added to the violence of the Disease by increasing Putrefaction and so turning it into a putrid Contin. Fever

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Fever. His Practice was to give liberally of Testacea & Volatile Alkalies and to prescribe a very hott Regimen all which are known to encrease Putrefaction.

This Disease is the genuine product of heat and moisture as the may be convinced by comparing the healthiness of the Country about Rome now to what it was formerly when it was kept clean and properly drained & cleaned, & for this & several other Causes consult Lancisi De Noxiis Paludum Effluviis — Sailors are particularly predisposed to have this Fever, especially in their going to the East & west Indies, in a worse Degree than others, because of their Diet being of putrid Animal Food salted likewise the heat and bad Air in course stormy weather then they are obliged to shut the Ports, hence upon the accasional Cause of going ashore formerly mentioned Especially the Disease will certainly "proportionably dangerous & violent — we know how much this Salt putrid Animal food dis-

Disposes them to the Scurvy, which is a very putrid State of the Body - There is another Cause that Disposes them to it when they see the Crew so Diseased and affected by this Mortal Disorder their own Naturall apprehension of their own life & likewise the excessive Perspiration and Sweating which Europeans have in these warm Climates subjects them to the Depressing Passions. The Remittent Fever of itself does not appear to be so very Contagious and all those who intend to go to the Indies should Consult Dr Lindes Treat and Thesis.

The Yellowness of the Skin is not at all owing to any Hepatick Obstruction, but entirely to the Redundancy & immoderate Secretion and Consequent Absorption of the Bile. There are some persons who are constantly exposed to putrid Effluvia both Animal and Vegetable, without being at all affected by this Disease, such are Seavangers

and

and victualling Officers of the Navy and Ana:
:tomists in dissecting morbid Bodies, but
why these Effluvia have not the same effect
as those of Marishy Countrys, which proceed
from the very same substances I cannot
explain — The Inhabitants of such Coun:
:trys as these and Intermittents are freq^t
in, are commonly healthy enough, & live
to a good old Age, but in general not quite
so healthy as those who live on high &
elevated situations, and are not by near
so subject to them as strangers, but we
know that whatever acts on the Constitution
takes its effect by repetition and even Poisons
do this the Constitution can be so bent to
them by frequent use as not to fail them

When people sleep out in the night time
they are certainly more exposed to the
Fever than when they walk about in the
Sun on the Day time.

The Sun and Moon are observed to have
a very remarkable Effect on this Disease

An Eclipse of the Moon frequently causes a relapse, and when the Sun is clouded the symptoms are generally more severe than when he is clear; and Patients are worst at New and full Moon and at low Water or sea mark &c; these are really facts which I do not attempt to explain but may be of Importance to observe and we may be able in the Eclipse to prevent the Relapse so frequent then by the Exhibition of the Bark and in full & New Moon.

To Europeans there is no Employment in these Countrys more destructive than cutting down woods especially in rainy seasons, its ruin more most all than the Plague.

I now proceed to mention in the next place the INDICATIONS of CURE. And 1 We should endeavour as soon as possible to procure an Intermission of the Fever or as perfect Remissions as we can.

2. To procure an Evacuation of the Redundant and Acrid Colluvies of Bile in the P. V.

3. To resist the Tendency to Putrefaction.
4. To Moderate the Violence of the Symptoms
As there is no Crisis in this Fever we must not depend on Natures making any Efforts for her relief, for we are very certain the greater part of those who are seized without would die if not assisted by Art — Bloodeing is only occasionally necessary especially in Europe & here in case of Inflammation it may even be repeated, but in warm Climates, bloodeing once cannot be done at all; the most proper time when judged necessary is in the height of the Febrile Paroxysm — In warm Climates Countrys where bloodeing is most dangerous when there are violent Affections in the head that require this Evacuation, Topical bloodeing is safest & most effectual.
Evacuations are very necessary by Vomiting in order to procure a Remission or Intermission that the Physician may then have an opportunity of throwing in the Bark, which

which is the great Design of giving them & besides they procure a Discharge of the vicious Bile and often pass by Stool — They when with purgatives have sometimes the good Effect to stop this Fever entirely.
When we give Emetic Tartar in this Fever & in general the Patient should not be allowed to Drink soon after it because the lips they Drink the greater Tendency has it to pass Downwards, & here Dr. Pringle says it answers better than Ipecacuanha, which he supposes to be rather hurtfull — The general way of giving the Emetic Tartar is in small doses but in warm Climates there is great Caution necessary in giving Vomits because of the extreme Acrimony of the Bile producing inflammation of the Guts and Stomach which would be greatly increased by the Vomit they may be given with much greater safety in Europe, and in warm Climates if they are given soon enough there will be no Danger because this Inflammation does not happen

happen till the 3d. or 4th Day.

Purging is certainly necessary in this Disease to evacuate the Redundant acrid Bile and likewise to assist in procuring Remissions, but they should not be of the Aeri Stimulating kind otherwise they will in danger an Inflammation, they should be of the cooling mild kind and Emet Tart. dissolved in a Decoction of Tamarinds and Solution of Manna is one of the safest and most proper Cream of Tartar in small Doses frequently repeated is likewise very good and especially antiseptick & purgative.

If Emet. Tartar does not pass by Stools a Glyster will be very proper to give it a Determination this way.

In Warm Countries this Fever is often so violent as to carry off the Patient at the 2d. Paroxysm if the first is not catched & the next prevented by the Bark, and when

when the Bark is given before the 2d the 3d is the most violent, and it was this 3d Paroxysm that carried off the Men at the taking of the Havannah

It has been observed that in Germany in high Elevated Situations, the Bark did not agree with the patients, but this was only when the P. V. were not previously cleaned & the Patient bleeded — As soon as the height of the Paroxysm is gone we should begin to throw in the Bark & not wait till the Sweat be over, but give ℥1. every hour till we have made them take ℥1. or ℥ij.

In warm Climates the Stomach is very irritable & will not keep the Bark, here we are obliged to gain with it 10. 12 or 15 Drops of Laudanum and if they cannot bear it in this Form we must give it in Clysters. Sometimes in the west Ind. in particularly the symptoms have been so high as that no Remission could be observed & here as soon as the P. V. were cleaned the Bark has been ordered without waiting for Intermission

Dec. 25 Intermission or Remission.
Oct 13 In this Fever the common Febrifuges cannot
1708. be given on account of the great Irritability of the
Stomach, and saline Draughts are liable to the same
Objection, unless given in the Act of Effervescence
& then they stop the vomiting and are by Experiment
found to be Antiseptic; but these and all Neutral
Salts are found offensive to the Stomach & the
more so on account of the Putrid Colluvies in
the P.V. When Juice of Lemons cannot be had an
easy Method of making them is by taking one
part fixd Alkali and 2 parts of Cream of Tar-
tar and putting them into water where they
raise an Effervescence.

The Prostration of Strength & Depression of
Spirits indicate the use of Cordials and wine
is the most proper with some Orange Juice
in it, Volatile Alkalies because of their Stim-
ulating the Stomach too much & not on account
of their Septic Quality which they do not at
all have, are improper here, unless it be
when a very sudden Stimulus is wanting
These Medicines disgust the Patients Stomac

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Stomach and prevent its leaving the Bark which is the Medicine on which the life depends in this Disease. The Diet here should be Cooling and Aperient, & fruits are particularly proper, but what is of the greatest Consequence in point of Regimen is removing the Patient immediately into a dry cool air or an elevated situation, the suddenness of the change shews the very quickest Contagion and if by any means it is practicable to remove the Patient it should be done, but when this is impossible no measures will avail: This Removal is no doubt attended with some real Inconvenience and even danger but if he is carried to a considerable Distance in a horizontal posture on a litter & common care taken of him there will be little or no danger & Dr. Lind has seen them remove several miles in this way without any bad Effect at all, but in doing it we should be careful to shut out the Light because it has a bad effect in encreasing the Delirium; there are very few places or Countrys, even the most unhealthy but

but you'll find some Spots where the Endem ic Disease does not prevail & the Inhabitants are perfectly well. Our People are egregiously mistaken when they say it's not the Night Damp & putrid Effluvia, but the heat that does it, this alone will never do it, It is found that in case at land there be no conveniently situated Place for removing the sick to, if they are taken aboard a ship at such a Distance from Land as to out of the reach of the Fogs, it has a remarkable good Effect & is a circumstance which ought to be well attended to & remembered by all such as intend to go to the West Indies, or to the Coast of Guinea where this often happens & to all Europeans proves benificial
In the Intermittents in England the same thing happens, for we are often obliged after giving Medicines to no purpose while the Patient remains in the Marishy damp places, to remove him to dry Elevated situations and then he will recover in a few weeks perfectly
Fresh Air and Cool with greatest Cleanlis are indispensible points in Regimen. B

Blisters in warm climates are not proper unless in Cases of Coma or Stupor; sometimes when applied to the Region of the Stomach they remove the vomiting & violent pain it occasions, in the beginning of the Disease they rather exasperate the Symptoms.

Too soon using much Animal food causes a Relapse, the best means of preventing of which is Bark, Cold Bathing & proper Regimen of Diet; in Europe the frequent use of Queens and other Flatulent Substances, and neglect of the Bark bring on a Relapse.

The Best preservatives against this Fever is a proper Degree of Exercise, avoiding Night Damps, and sleeping in dry well aired Rooms.

The Authors I would recommend to you on this Subject are Dr. Pringle, and Dr. Monro on Camp Diseases, but especially Dr. Lind & Cleghorn on Diseases of Minorca.

Of The Yellow Fever.

III. Genus of this Order is the Yellow Fever of the West Indies, I might have perhaps included it as a species of the Bilious Fever but as there are some Symptoms that can easily distinguish them & are particular to this Disease; and because it is so very fatal to Europeans I chose rather to handle them separately.

The yellow Fever begins with Anxiety, Sense and Weight of the Hypochond. & Precordia, a burning heat of the Eyes, vomiting of Bile great Debility & yellowness of the Skin.

It is Divided into two Stages. 1. The Ardent and Inflammatory. 2d. The Putrid Stage.

The Ardent Stage begins with Rigor, Pain above the Eyes, Nausea, there are succeeded by Ardent pungent heat, the Pulse is full & soft, a violent Pain of the head, with

with great Pulsation of Carotid Arteries & flushing of the face. There are now Pains of the Eyes, vomiting of Bile of various Colours from yellow to green and Black, & so very Acrid as to excoriate the Gullet and Anus & bring the Blood. Now there is great Internal heat, Tension & Swelling of the Hypochondria the Breathing hott and difficult, Jactation & want of Sleep, unquenchable Thirst, Bitterness of the Mouth very great. The Tongue yellow but not very foul, Costiveness, Urine red & high coloured & in small Quantity. Skin in for the most part dry, tho' sometimes Moist On the 7th Day there is commonly a Remission for a few hours, but the Symptoms return with encreased Violence and the Tongue grows brown in the Middle, but red at the Edges the Lips are likewise red; the Tongue at the End of the Fever grows Black.

This is the Ardent Stage of the Disease but after this the Symptoms of Putrefaction come on whence we name it the Putrid Stage

stage; and on the 3d Day we commonly observe a vescid symptomatick Sweat, and the Pulse large soft & full; the Skin feels coldish there is great Anxiety, with some remissions fainting on the least Motion, Breathing deep, the Patient Comatose, with transient fits of Delirium, yellowness over the whole Body but very deep in the face and Eyes.
On the 4th Day Vomiting Continues & the Bile thrown up is mixed with Blood, this throughout passes by Stool, & the Putrid Symptoms follow as Hemorhagies, cold & swelled Extremities Hiccup, Urine bloody of a yellow Colour with a Black Sediment, which is a very bad symptom but if absent all the other appearances are exasperated, & now there appear Black Spots on the Surface of the Body & shortly the Patient dies either Comatose or by a sudden and general Convulsion. The State of the Blood in the beginning of this fever is always observed to be somewhat dissolved, but in the end is altogether so & very foetid, this

This Fever sometimes comes on very mild & all of a sudden kills the Patient, when no Danger was seemingly to be apprehended.
The Delirium is never constant, & in Cases where there are no Remissions it proves fatal on the 2d Day. It sometimes runs into an Intermittent, but tis observed that in Barbadoes it never takes this turn. It is sometimes carried off by sweating and by Diarrho, seldom by Vomiting, & never by Hemorhages, because they always appear in consequence of the Dissolution of the Blood, it is carried off too by Natural Salivation. Instead of growing pale when they faint here they grow more yellow.
The Yellowness appearing only about 8 or 9 Day of the Disease is choosed Critical.
Physicians who have not had Experience are very apt to think their patient out of Danger, tho' perhaps within a few hours of Death, because the Pulse becomes soft, full & slow the heat left, the breathing full and deep and every thing almost as in health

There is often in this fever a lightening before Death and recovery of the Senses for a few hours and then the Patient suddenly carried off by a sudden Convulsion.

In Carolina this fever is attend with a white tongue, little thirst, & sweating on the 2 first Days, Urine of various colours, from pale and limpid to high coloured, the Stools are bilious and after the first Day fœtid, there is great prostration of strength, and the fever goes off on the 3d Day, the pulse then grows hard & slow, then soft, the heat less, Respiration and tongue are soft, the Pulse continues to rise, the Vomiting lasts and the Bile thrown up is often black and proves a mortal symptom when the vomiting there is an increase of putrefactive symptoms, of the Delirium Jactation, there are Petechiæ, Black Stools & hæmorrhagies, sometimes they live 7 or 8 Days and often it proves fatal in 48 hours. The greater the Sediment in the Urine for the first 2 days of the fever the more fatal the Consequence, & the sooner the yellow Colour

appears the more fatal the Disease, the Pulse is often as in health; from this Account of it in Carolina it appears to be the same as in the West Indies tho' different in some Circumstances Antecedent & Procatartick Causes. It is peculiar to Strangers & seldom attacks the Inhabitants: those who are most subject to it are the Young, the Sanguine & plethoric, those who most feared it's attack are most apt to be seized with it; people who come from a Cold Climate, or have been weakened by previous Diseases are more subject to it than others. It's violence is greatly increased by hott Calm weather & Putrid Exhalations, but frequent cool Breezes contribute to abate the Symptoms and to the general health of these places: it is likewise produced by being much exposed to the heat of the Sun by drinking largely of fermented Liquors & feeding much on Animals, and by the Effects of Damps. In Carolina it is infectious, hence different from what it appears to be in the West Indies, and is a fever that seizes once in one's life. In Carolina, the Children an

and Negroes escaped, but were subject to Bilious remittent Fevers, the Contagion however did not spread in the Country, and as every other Infectious Distemper was checked by the approach of winter; the Symptoms were observed to be encreased by hot Days and by the Patients being kept in close Rooms.

The Proximate Cause. In this as well as in the former fevers there appears a very great redundency Acrimony & absorption of the Bile, and in the first Stage there are commonly Local Inflammations especially of the Liver and Stomach, which succeeded by the Putrid Stage.

The Reason why the Natives are not subject to it may be that they have a lax Cutis and the Vessels on the Surface are always full & they sweat easily, but it's a considerable time before the Skins of Europeans can be rendered lax by the heat, or the Cutaneous Vessels become to yeild to the necessary fullness for supplying the sweat, and as there is a similar Degree of equality observed twixt the Ingesta & Egesta

Egesta, and a constant tendency to putrefaction in the Animal System, if therefore the superfluous putrid particles are not carried off this tendency will be increased by this besides by the heat of the Climate and Moisture, and if to this we add that the Excretions are lessened no wonder will remain that these places should produce this Disease on Strangers.

I am not certain if the Yellowness be owing to the Absorption of the Bile, because we often see the skin rendered yellow from other Causes as putrid Scurvy, & the Bite of the Viper causes a Disease in which the Skin is Yellow and in the Scurvy, which is a very putrid Disease Morbid Dissections throw no light on the Proximate Cause of this Fever, only shew its Effects as Inflammations of Stomach and Gangrene the Liver inflamed enlarged & suppurated & the Brain affected in the same way.

In many Circumstances it nearly resembles the Plague, tho' essentialy & specifically different in others, & I do not think the Plague ever appeared in the West Indies. I now come to mention

the Indications of Cure. The 1st is to moderate the Inflammatory Symptoms in the beginning
2d To evacuate the Acrid Collluvies in the 1st. & 2d. in order to procure a Remission of the Symptoms.
3 To check the Putrefactive tendency by Antiseptics
4. To relieve the particular Symptoms & support the Strength.
It is necessary in the beginning to abate the Inflammatory Symptoms to draw some Blood, but this should be done with Caution otherwise it will produce very bad Effects and the Quantity should never exceed ℥ or ℥iv. where the head is very much affected, afterwards Bleeding has perhaps been premised, cupping & Blistering are much less dangerous & more effectual. Blooding in the beginning moderates the Symptoms and lessens the Putrefactive tendency, but unless in the very beginning it is not at all advisable afterwards.
Vomites in this Fever should be given with great Caution because of the great irritability of the Stomach & Bowels they do apt to be inflamed by Pulvis Ipecac & Bile; but Tartar Emetic

Emetic given in small Doses or in the Decoction of Tamarinds recommended in the last Disease it carries down the Putrid Collluvies & more certainly when small Doses of Laudanum are added, Glysters likewise cause to exert its Effects by stool, & besides the Copious Stools & relief of the other Symptoms it likewise procures Remissions & so gives an Opportunity of throwing in the Bark. If the Natural Vomiting ineffectual, the Stomach may be cleared by Chamomile Tea, and afterwards the Vomiting stopt by the Saline Draughts with Opiates and a warm Cataplasm of Theriaca & Laudanum applied to the Pit of the Stomach proves very Serviceable in this Case. It's observed when James's Powder is given in the End its attended with fatal Effects, & no wonder considering the Case of the Stomach & its violent Operation: it may be a question whether the Inflammation of the Intestines & Stomach be caused by the Acrid Bile or violent Symptoms.

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I mentioned before the Danger of giving Emetics especially in the end of the Fluxes, because of the irritability of the Stomach, and the danger of Inflammation, which is generally seated in the Duodenum, therefore that the Stomach might be washed out with Chamomile Tea, and after this to direct the Operation of the Tartar downward, to join it with Tamarinds & Manna, & if afraid to give it at all, as it's necessary to evacuate the putrid & sharp Bilious Collluvies either way calling Laxatives which have this Effect with the least Stimulus, may be given to great advantage, and the best of this kind are fruits and especially Tamarinds.

The Saline Laxatives as Glauber Salts & Regenerate Tartar, are very proper in this Case but the Stomach rejects them, & in order to prevent this Opiates should be joind with them, which is an exceeding useful Practice in this & many other Cases where the Stomach is so easily irritated. It is always necessary here

here to keep up a gentle Diarrhoea from the beginning of the Fever, to the End left the dried Bile should be accumulated.

Diet here should certainly be of the most cooling and Aperient kind, & fruits if they can be had should be eaten freely — Cold water has the same good Effect here as in the Ardent fever & checks the vomiting when nothing else will do it, it may be made a General Rule that all Drink should be given in very small Quantities in all Cases where there is such Irritation of Stomach —

If Cordials are required Wines as the best mix with lime or orange Juice, Rhenish wine, or old hock or Claret are most proper, the Stimulating Cordials as Serpentary, Camphor, Sal. C. C. &c irritate the Stomach prodigious & are directly rejected, but Dr. Hillary mentions a Case where the Bark would not sit on the Stomach at all & a Decoction of Serpentary cured the Fever, & so easy

The dryness of the tongue formerly mentioned

strongly points out the propriety & necessity of Pediluvia & warm Fomentations to the Extremities, it relaxes, promotes Diaphoresis, and acts as a plentiful diluter, which last is especially necessary when by reason of the Vomiting proper & sufficient quantitys of liquids cannot be swallowed; & over and above whatever promotes Perspiration during the Vomiting soon brings on a copious sweat. & it has been a successfull Practice for this Purpose to put on the Patient a wollen shirt of flannel wrung out of warm water, which procured a sweat when nothing else would do it; these warm fomentations & Bathings, are especially usefull, in the Ardent Stage of this Fever; but if at all used, in the Putrid state, it should be very cautiously; because the Patients are extremely apt to faint, & if in the least hot, increases Depression of Strength & Spirits; in generall it is most needed & most proper in the Inflammatory Stage, of this Fever.

Blisters are in generall of no use in this Fever, in the Ardent Stage they exasperate

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all the symptoms, and in the latter are of no manner of use, unless in Cases of Coma & Lethargy. Hellary is a great enemy to them, in this fever, tho' on a piece of very Idle Theory, the Alkaline Salts of the Cantharides, being thrown into the Blood, says he, dissolves it, & induces Putrefaction; but this, as may be collected from what I have already said of Blisters, is erroneous.

After cleansing the Stomach by the Medicines already mentioned, which have the Good Effect of procuring Remissions, & sometimes two, carry off the Fever entirely; but as soon as the last Remission appears, the Bark is to be given either by the Mouth if the Stomach will at all bear it, or by Glyster, and given in as great Quantity as the Patient can take because it is the only remedy to be depended on in this Fever. Some have said that even the Mania that remains after Fevers but I believe they would have gone off without it, & they often disappear in Fevers where Bark has not been used. There are some Stomachs that reject the Bark in every

every Form it can possibly be given in
even in form of Glyster, but the Glysters should
have some Laudanum mixed with it; and
Opium in a dose of gr. ½ in a pill checks the
Vomiting better than in a liquid form, & we
find the Stomach sooner rejects liquids with
Laudanum than this form with no liquid
and here they must abstain from drinking
with it.

I now shall mention some circumstances necessary to be attended to by those who intend to go to these warm climates relative to the Prophylaxis. And when young, Plethoric people & such as are subject to Inflammatory Diseases, go to such climates it's proper they should lose some Blood, & but a small Quantity & only in persons should lose any & it must not be estimed a general Rule, for it will not protect them from the Fever, the Intention of it is only to render the Symptoms more mild the fever begins; It's of the utmost Consequence to keep up a due degree of Bow

Perspiration, hence Pediluvia at Night & fomentations with frequent Bathing are necessary to relax the Skin and Dipping in the Sea is found to be the best Corrective and promoter of Diaphoresis that can be taken. It is particularly necessary to keep a very open Belly especially by eating freely of fruit, and when these cannot be had Crem of Tartar in small Doses may supply their place, and a cool Vegetable Diet should be persisted in; Animal food & fermented liquors are both very bad; but wine may be used in moderation: the heat of the Sun should be avoided; but above every thing the Exposure to Night Damps & lying at Night in the open Air these are the most frequent & worst Causes of this. When the Fever makes its appearance in a damp moist Place the Patient should be immediately removed to a high elevated situation, which will greatly contribute to his recovery, in Antigua is a hill the Inhabitants of which enjoy p-

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perfect and uninterrupted health, and the persons removed to it generally soon recover and do well.

There are many Circumstances in which these fevers the Ardent, Bilious Remittent & Yellow Fever are found to agree, there is in all of them a Disposition to remitt, in all of them there is a Redundency of Bile, all begin with Inflammatory Symptoms they agree in that Evacuating Medicines often entirely carry off the Fever, and seldom fail of procuring a Remission of the Symptoms or an Intermission, and the Bark cures them all at this Period, they agree in the great Irritability of the Stomach, and this as was before said should make Physicians peculiarly Solicitous not to disgust the Patient with Drugs, & so render them unable to swallow the Bark, there should for these very reason be the greatest Simplicity of Prescription observed, I apprehend none more are necessary here, but Antimonials the Bark and fruits, and Wine as a Cordial

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The authors I would recommend are Dr Pillary Dr Mapletriks, Dr Lind in the Edinburgh Physical Essays, but you should be cautious in following the practice of authors who wrote some years ago, because I apprehend the method of treating the Disease now is a little different from what it was then and Now the treatment is much more simple and better adapted to the Disease.

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